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Graduate Students' Perceptions of Sense of Community and Contributing Factors

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GRADUATE STUDENTS' PERCEPTIONS OF SENSE OF COMMUNITY AND CONTRIBUTING FACTORS

by

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Dedication

To all my teachers, both inside and outside the walls of academia. Especially the one I call Mom.

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Abstract

Research indicates that a strong sense of community has many benefits for the learner, including increased engagement, persistence, satisfaction, and perceived learning. The growth of online learning requires that effective strategies be identified to establish a strong sense of community in a virtual environment. This mixed method study investigated the following primary and secondary question: What are graduate students' perceptions regarding sense of community in the online graduate programs at a small, private college? What contributes to graduate students' sense of community in the online graduate programs at a small, private college? A quantitative survey using Likert-type questions was sent to 305 students in 100% online programs to measure their perceptions of sense of community in their online courses. Fifty-one students responded to the survey, which found that a student's sense of community is impacted by their gender, age, and the number of online courses they have taken. Six of the survey respondents who volunteered to participate in the qualitative portion of the study were randomly chosen to participate in a semi-structured interview. Results of the interviews found that discussions, synchronous activities, instructor presence, and the opportunity to share information and opinions impact students' sense of community in online courses.

Chapter 1

Introduction

Peter Block (2008) states that community is about the experience of belonging. Feeling a sense of belonging is important because it opens the door to new conversations and knowledge construction. It removes fear of retribution and provides a safe environment for sharing and learning. As an educator and program director for a graduate program that is primarily online, I wonder how you establish a sense of belonging when you can't actually see the people in the group to which you belong? This question intrigues me and drives me to explore the idea of community as it relates to learning in an increasingly virtual world.

Research suggests that for many students, online learning, particularly an asynchronous approach, provides a high level of satisfaction due to its emphasis on interpersonal interaction and its flexible nature, allowing students to choose when and where they learn (Arbaugh, 2000; Richardson & Swan, 2003; Sher, 2009; Sun, Tsai, Finger, Chen, & Yeh, 2008). However, those aspects that students value about online learning conjure concerns in the education community regarding the effectiveness of online learning compared to face-to-face classroom learning. One aspect of learning that has seen an increase in focus over the last several years is the importance of community, often defined as feeling a sense of belonging. Research indicates a positive correlation between sense of community and student engagement and persistence, course satisfaction, and perceived learning (Gallagher-Lepak, Reilly, & Killion, 2009). Much research has been done regarding practices for establishing community in the classroom, but with the continual increase in online learning educators must shift their focus to strategies to establish that same level of community in a learning environment where students and instructors are physically distant and learning asynchronously. Without physical cues such as tone of voice or facial

expression, implementing pedagogic strategies to establish a strong community is even more critical to the learning process in an online environment.

Although there are many aspects of this topic that I would like to explore, ultimately I would like to study students' perceptions of community in the online environment to learn how to establish a strong online learning community for the students in an online graduate program. Thus, this study will address two research questions:

Primary Question: What are graduate students' perceptions regarding sense of community in the online graduate programs at a small, private college?

Secondary Question: What contributes to graduate students' sense of community in the online graduate programs at a small, private college?

Philosophical Foundations

As one embarks on a research study, it is important to examine the personal experiences and philosophies that motivate the researcher's work. A clear understanding of the researcher's goals keeps the researcher on track and focused on activities that serve to advance those goals. According to Maxwell (2013) these goals serve two purposes. One, they guide design decisions and ensure that the study is worth doing, and two, they justify the study and its value. Maxwell indicates that it is useful to identify the goals from three different perspectives: intellectual goals, practical goals, and personal goals, each of which are critical aspects of my interest in studying community in online learning.

Intellectual goal. My intellectual goal stems from my experience as a graduate program director for a blended program that requires two weeks of face-to-face learning, with the rest of the learning happening online. Recently my department decided to eliminate the face-to-face component to cut costs and increase accessibility of our program to students who may not have

been able to commit to two weeks on campus. Due to this change the students will never be physically together during their time in our program. Previous feedback from students has been that the connections they make with students, faculty, and staff during the face-to-face sessions are invaluable. Now that they will not be on campus at all, it will be critical to focus on establishing a strong community for our students in the online environment for retention, academic performance, and professional and social development. I would like to use what I learn through my research to improve the strength of community in my program.

Practical goal. The second reason for my interest in this topic is a practical goal related to the changing educational landscape. As more programs move to online learning, the consequences of an increase in virtual learning programs need to be examined. There are many questions that need to be considered. For example, how does the online environment impact learning outcomes? How do virtual programs affect student enrollment and retention? Does it change the profile of the type of student entering a program? How does it affect student and alumni engagement? Finally, how does the strength of community within a program influence all of these factors? I believe that sense of community impacts of all of these aspects of education so my focus at this time is to research students' perceptions of community to inform future research regarding my research questions. My intent is to contribute to the body of knowledge in this area and assist in establishing best practices for online learning in community.

Personal goal. The third reason is a personal goal. My own experience as a graduate student in the Health Information Management (HIM) program for which I am now the program director also influences my curiosity about this topic. For better or worse, I tend to be a very independent learner. I need quiet time for reflection and processing which often causes me to retreat away from a classroom setting. When I was a student in the HIM program, I found the

online courses to be of more value based on my personal learning style than the on-ground courses. I made lifelong friends and important professional contacts during the face-to-face sessions, but in terms of learning, the online courses were more conducive to my scholarly development. I'm not sure if that is due to the design and presentation of the courses, or my natural learning preference. It is now 8 years later and I am engaged in the EdD learning community. I have found much more value in my EdD cohort than I did in my previous face-to-face classes - is that because of the community focus in the EdD program that did not exist in my previous academic experience, or is it because I have grown and developed as a person and a scholar? I would like to explore this question through my research to fulfill my personal quest for understanding and self-knowledge.

My positionality as a program director, educator, and scholar directly influences my research agenda. As a program director, I have a strong opinion about how community affects learning in my program, especially in relation to the face-to-face sessions. Although my ultimate focus is always on student learning, there are many other aspects of my job, such as increasing student enrollment and managing the program's budget, that impact my perspective related to how the program is run. I have a historical perspective of the program that others do not. This knowledge about the program could be an advantage if it informs my research, or it could be a disadvantage if it limits what I can envision for the program as I conduct my research. For example, in my 7 years as program director I have read numerous student evaluations that rate the face-to-face sessions as one of the most important and valuable aspects of the program. Knowing that led to my bias that community will diminish if there are no face-to-face sessions included in the program. My assumption has been that a community cannot be as strong in a program that is completely or primarily online. However, now that we have decided to do away

with one of the sessions, I must change my thinking. Instead of focusing on community during the face-to-face sessions, I need to change my focus to finding ways to strengthen community in our online courses which will be the focal point of my research.

Worldview. I am approaching this study from a pragmatist worldview, using multiple methods of data collection to inform my questions (Creswell & Plano Clark, 2011). I believe in the value of both objective and subjective knowledge, in line with Dewey's description of an "existential reality" - a reality composed of both objective and subjective experiences (Dewey, 1925). I am approaching my research from a practical stance, addressing my primary question quantitatively and incorporating my secondary question qualitatively to gather more in depth information for a well-rounded perspective that will produce strategies that can be implemented in the real world.

As a result of my personal, academic, and professional journey, and my pragmatist world view, I am driven to explore the concept of community, how it impacts adult learners, and its role in online education. Before embarking on that path it is important to take a step back and examine the theoretical foundations that ground my research, and gain an understanding of adult education, the history of distance education and the emergence of online learning. I will also define community and how sense of community affects learning.

Theoretical Foundations

In addition to examining the researcher's personal perspective related to his or her research, one must also investigate the relevant theories and concepts that support and inform the study. The theoretical foundation provides existing knowledge to support the research design and the need for the study. Theories and information related to three themes will be addressed to support this research study: community, online education, and adult learning.

Community. The first theoretical theme that supports my research is the idea that community is important for learning. Community has long been identified as a critical component of the learning process. John Dewey (1933) recognized that learning is a social process that should be approached in a collaborative way for knowledge construction to occur. Vygotsky (1978) argued that cognitive development must be examined through a social lens. He believed that learning occurs not only through the acquisition of knowledge, but through the integration of knowledge in community and social contexts. Sergiovanni (1994) extolled the need for community in schools to empower teachers and students through shared values, ideas, and commitments. These early thought leaders could not have predicted how complicated establishing community would become as distance learning becomes the norm in education. Although it is true that learning takes place within an individual, it transpires through social interactions that often occur in community (Collay, Dunlap, Enloe, & Gagnon, 1998).

Today there are several definitions of community that are prevalent in the research, most of which build on the work of Dewey, Vygotsky, and Sergiovanni. Much of the literature refers to community in the online environment as "sense of community", although there is no universally accepted definition for the term. Several of the definitions refer to sense of community in terms of feelings – feelings of membership, feelings of belonging, feeling part of a bigger whole. Rovai (2002) boils it down to these five most essential elements of sense of community, which will be used as the guiding principles for this study: mutual interdependence among members, connectedness, trust, interactivity, and shared values and goals.

Although acknowledging the importance of community in education is not new, the ways in which we establish community are in a state of flux due to the changing educational landscape. Traditional classroom strategies for building community are well established;

however, we have only just begun to examine strategies that work in the increasingly virtual learning environment. It is the duty of the educator to establish a learning environment that allows those social interactions to occur – online learning adds a new layer of complexity to that charge as more students learn from a distance.

As online learning increases, the importance of community has become a major focus in the research. Studies show that having a strong sense of community attracts and retains learners, increases student satisfaction, as well as students' perceived learning (Rovai, 2002). As students and faculty become more dispersed in education, it is critical to find ways to incorporate community-building strategies in this new virtual environment.

Online education. The second theoretical framework informing my research is related to the increase in online learning. For the purpose of this study, online education is defined as teaching and learning using computerized methods that occur from a distance, with no in-person interaction among the students or faculty. As indicated, there is much research supporting the importance of community for learning, however, most research is based on the face-to-face classroom model. According to a survey conducted in 2013 by the Babson Survey Research Group and the College Board, more than 7.1 million students took at least one online course during the fall of 2012, and online enrollments are growing much faster than that of traditional classroom programs (Allen & Seaman, 2014). The survey also indicates that 66% of chief academic leaders say that online learning is critical to their long-term strategy, and Sloan-C Board President Joel Harman supports that finding with his assertion that "online learning has become a fundamental component of today's higher education environment" (Denice, 2014). It seems that the popularity of online learning won't dissipate anytime soon so it is critical that research efforts are made toward understanding effective strategies for the online classroom.

There are several definitions of distance education among scholars, focusing on varying aspects of the discipline. Larreamendy-Joerns and Leinhardt (2014) agree with Holmberg's (1986, p. 26) perspective which indicates that distance education includes various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students on the same premises, but which benefit from the benefits of a tutorial organization. The U.S. Department of Educational Research and Improvement presents a more modern definition of distance education as "the application of telecommunications and electronic devices which enable students and learners to receive instruction from some distant location" (Bruder, 1989, p. 30). More simply put, distance learning is "any type of learning in which the components of a structured learning activity (i.e. learners, instructor, and learning resources) are separated by time and/or geography" (Rovai, Ponton & Baker, 2008, p.2). Most commonly cited in the literature is Keegan's definition of distance education which identifies five qualities that distinguish it from other forms of instruction (Bernard et al., 2004):

1. The quasi-permanent separation of teacher and learner
2. The influence of an educational organization in planning, preparation, and provision of student support
3. The use of technical media
4. The provision of two-way communication
5. The quasi-permanent absence of learning groups (this point is sometimes debated in the literature because it excludes group-based activities that can happen through technologies such as teleconferencing)

To accommodate e-learning, Rekkedal and Qvist-Eriksen (2003) added to Keegan's definition by including the use of computers and computer networks to unite teacher and learners and present

the content of the course, and clarified that the use of two-way communication occurs via computer networks. The key points are that distance education is intentional, consists of structured teaching and learning, whose participants and activities occur separated by time and/or place.

The growth in online education requires that researchers examine community, and how to establish it, in an online environment. Learners in online programs are physically distant, and often interact with each other asynchronously, without being online at the same time. Researchers have found that this can lead to feelings of isolation, distraction, and hampered social development (Rovai, 2001). Without establishing a strong online community, learners may not experience the benefits a learning community provides, such as increased flow of information among learners, the availability of support, commitment to the group's common goals, cooperation among members, and satisfaction with the group's work (Rovai, 2001). In order to discover effective community-building strategies that are applicable to the issues unique to online learning, there is a need to understand what community looks like in the virtual environment.

Adult learning. The third theoretical framework informing my research is related to the characteristics of the adult learner. For the purposes of this study, "adult" is defined as someone who has reached age 18, the age of majority in the United States. Graduate students are considered to be adult learners. Adult learners enter their educational experience with more fully formed ideas and values, and with more life and work experience on which to draw and share (Knowles, Holton, & Swanson, 2005). They also tend to make the most of class time to interact with faculty and other learners to enhance the learning experience, thus supporting the

importance of incorporating community-building activities in online courses (Jacobs & Hundley, 2010).

The adult learner, and how they learn best, has been studied since the 1920s when adult education became a professional field of practice. One of the most well-known theories of adult learning is Malcolm Knowles' theory of andragogy, the art and science of helping adults learn (Cercone, 2008). Knowles, who is considered the father of adult learning theory, identified a number of principles of adult learning which can be summarized into four main points.

1. Adults are self-directed learners.
2. Adults have rich experiences and knowledge on which to draw.
3. Adults want to apply what they learn to real-life situations.
4. Adults see education as a process that increases competence and leads to achievement of their full potential (Hohler, 2003).

In addition to understanding how adults learn, it is important to understand the characteristics of adult learners. Most adult learners have many responsibilities that can impact their learning. Many of them begin educational programs voluntarily while managing their course work around their numerous responsibilities. They often tend to be highly motivated and task-oriented. All of these things are important considerations when examining effective online learning communities for adults. As Cercone (2008) points out, most distance education students are adults between the ages of 25 and 50 – the more we understand the nature of adult learning, the more effective learning experiences we can create for them.

The online learning environment can certainly satisfy the needs of adult learners if the proper pedagogical strategies are utilized. This will require strong online learning communities where students feel comfortable driving the learning process and are given the opportunity to share their

experiences to construct knowledge together. To better understand the intricacies involved with establishing such a learning community, sense of community in the online environment will be examined in depth, specifically addressing the adult learner. This knowledge will support my mixed method study of graduate students' perceptions of community in the online environment and specific contributors to that sense of community.

McMillan and Schumacher (2010) state that human judgment is critical to research, but principles of evidence-based thinking make such judgments more accurate. By reflecting on my identity as a researcher and examining scientific evidence regarding community, online education, and adult learning I aim to generate credible information that will contribute to my own practice and to educational research by addressing the research questions:

Primary Question: What are graduate students' perceptions regarding sense of community in the online graduate programs at a small, private college?

Secondary Question: What contributes to graduate students' sense of community in the online graduate programs at a small, private college?

To answer these research questions the literature will be reviewed to provide a historical context and investigate current research related to distance education and technology, perceptions and practices related to online learning, sense of community and its impact on learning, and the characteristics of adult learners. A mixed method design will be used to gather data regarding students' perceptions of community and the contributors to sense of community for application in practice, using a survey tool to gather quantitative data, and semi-structured interviews to gather the qualitative data. The data will be analyzed using both quantitative and qualitative methods, and the results will be examined in relation to the study's impact on current and future research and professional practice.

Chapter 2 Literature Review

Introduction

In support of my research on the topic of students' perceptions of sense of community in online graduate education, understanding of several concepts related to my research questions must be addressed. First, one must examine the history of distance education and the impact technology has had on higher education. Next, it is important to examine perceptions of online learning, including exploration of effective practices in online education. Third, the critical role community plays in the learning process must be discussed, and finally, acknowledging the unique characteristics of the adult learner and how those characteristics align with online learning strategies is essential. In addition to exploring these key concepts, an analysis of recent research related to the topic is critical to determine the appropriate research design which will contribute to the existing body of knowledge and address the research questions:

Primary Question: What are graduate students' perceptions regarding sense of community in the online graduate programs at a small, private college?

Secondary Question: What contributes to graduate students' sense of community in the online graduate programs at a small, private college?

Distance Education and Online Learning in Higher Education

Online education grew out of the distance education field which began in the United States in the 19th century. According to Larreamendy-Joerns and Leinhardt (2006), the desire for democratization, increasing access to higher education by underserved populations or increasing the range of individuals who can be served by elite institutions, was one of the early driving forces for the establishment of distance education programs. The post office was the first means

of providing distance education, beginning with the Pitman Shorthand training program offered as a correspondence course in 1852 (Casey, 2008). Most of the early students in these courses were female, leading to the development of other programs that catered to women such as the Society to Encourage Studies at Home which began offering liberal education to women through the mail in 1873 (Larreamendy-Joerns & Leinhardt, 2006). This led to increased recognition of correspondence courses by states and educational institutions. The state of New York authorized correspondence courses after William Rainey Harper, considered one of the founders of university correspondence instruction, developed a correspondence program in New York. He went on to spearhead the same as president of the University of Chicago, which created the first college-level distance learning program in 1892, achieving academic recognition of the value of distance learning (Casey, 2008).

Soon technological developments established new ways to educate and learn from a distance. Live educational radio shows emerged with the advent of radio broadcasting in the 1920s, television became an instructional medium in 1934, and by 1970 Coastline Community College's fully televised college courses allowed the organization to become the first college without an actual campus (Casey, 2008). Although distance education was becoming more mainstream, it wasn't until the microprocessor was created in 1971 that an equal opportunity of information exchange between teacher and student could occur. The computer provided the means of effective communication that distance education was lacking, and when the World Wide Web was developed in 1991, it allowed for access to information and connections beyond what anyone could have imagined at the time (Casey, 2008). This was the beginning of online education and a new educational frontier.

Distance education has become a central component of learning in higher education, thanks in part to the spread of the Internet. Where distance education was once a cumbersome process only accomplished by correspondence through the mail, today's technology allows for robust computer-mediated communications. Tools such as wikis and blogs are collaborative methods that have improved the ability of large groups to meaningfully communicate about complex topics (Hiltz & Turoff, 2005). The explosion of mobile technology also adds to the appeal of this flexible, and often more accessible, type of learning. Not only does this infuse a new dimension in education, but it changes the traditional learning model as face-to-face classes incorporate online learning technologies and methodologies. Higher education is in a state of evolution which is changing the nature of higher education both as a process and as an institution (Hiltz & Turoff, 2005).

There is much evidence to support the existence of this transformation. According to Larreamendy-Joerns and Leinhardt (2006) there are four strands of evidence that support this claim:

1. The launch of major online initiatives by first-rate institutions such as Columbia and Yale Universities.
2. The growth of e-learning.
3. The abundance of scholarly articles and academic journals discussing how the Internet is transforming the practice of teaching.
4. The reemergence of promises regarding the mission of distance learning and teaching programs.

The merging of online teaching and learning into daily practice at colleges and universities and the increasingly significant role distance programs play in higher education have garnered

opposing reactions from the academic community. Some view online education as an opportunity to overcome limitations of traditional classroom instruction, while others see online education as a threat to quality education. A look back at the history of distance education reveals that these reactions are not new; they occur whenever innovations in pedagogy challenge the classroom and the teacher as the supreme scenario and source for learning (Larreamendy-Joerns & Leinhardt, 2006).

According to Hiltz and Turoff (2005), higher education is in the process of moving from "face-to-face courses using objectivist, teacher-centered pedagogy" to "online and hybrid courses using digital technologies to support constructivist, collaborative, student centered pedagogy" (p. 60). This is a fundamental change in educational strategies as well as the business of education. There is now renewed focus on meeting the needs of students (Denice, 2014). Schools need to find ways to utilize technology to develop new models of online learning which can lower costs, increase access to a world-wide audience, and provide convenient educational opportunities for students, reinforcing the idea that education should be accessible to all. This comes at a time when admissions to colleges and universities are increasingly competitive, tuition rates have increased as much as 500%, completion rates are as low as 25%, and student debt is at an all-time high (Hardy, 2014). Increased pressure related to employment schedules, finances, and family responsibilities, as well as the high cost of post-secondary education and the limited availability of financial aid has increased the need for distance education (Abrahamson, 1998). Online learning has been the answer for both students and educational institutions.

Hixon (2014) calls for a new business model in higher education, with online education at the center of the change. With 1 in 8 recent college graduates being unemployed, and half of those employed holding jobs that don't require a college degree, the cost of higher education is

outpacing the value. Nearly three-quarters of institutions report that the economic downturn has increased the demand for online courses and programs (Allen & Seaman, 2010). Hixon sees technology as the solution to this problem as it lowers costs, boasts proven results, and allows for unlimited participation around the world (Hardy, 2014).

Perceptions of Online Learning

Despite the growth of online education and the needs it addresses, it has not achieved universal acceptance (Perry & Pilati, 2011). Skeptics of online learning raise concerns about the quality of online course work, indicating that some instructors may simply transfer content from a face-to-face to an online format without adjusting their pedagogical approach to conform to the technology. Others cite the lack of direct student-teacher and student-student interactions as a severe limitation of online learning (Smith Jaggars & Bailey, 2010). In contrast, advocates of online learning argue that education enhanced by technology can lead to superior learning outcomes and greater access to college for those who may not be able to attend otherwise (Smith Jaggars & Bailey, 2010).

The results of the research related to this debate are mixed. Several researchers suggest that students who complete online courses learn as much as those in face-to-face instruction, that they earn equivalent grades, and are equally satisfied. For example, Neuhauser's (2010) study found that the results of comparing two sections of the same course (one offered online and one offered face-to-face) revealed no significant differences in test scores, assignments, participation grades, and final grades, although the online group's averages were slightly higher. Ninety-six percent (96%) of the online students found the course to be as effective or more effective to their learning than their usual face-to-face course, and there were no significant differences between learning preferences and styles and grades in either group, concluding that equivalent learning

activities can be equally effective for online and face-to-face learners (Neuhauser, 2010). At the same time, research shows that online students are less likely to complete their courses (Smith Jaggars & Bailey, 2010). According to Carr (2000), persistence (the behavior of continuing action) in distance education programs is often 10-20 percentage points lower than in traditional programs, indicating that the needs of distance education students differ from traditional students (Rovai, 2003). Some scholars attribute the higher attrition rate to the type of student distance education programs attract (often older students with many obligations), while others attribute it to distance education as the mode of instruction (Carr, 2000; Palloff & Pratt, 2002). Regardless of the reason for attrition, it is clear that the needs of distance education students are different, and need to be examined closely.

Advocates of online learning were encouraged by a meta-analysis released by the U.S. Department of Education (2010) which concluded that "students in online conditions performed modestly better, on average, than those learning the same material through traditional face-to-face instruction" (p. xiv). However, the report also pointed out that instruction combining online and face-to-face aspects (also known as a "blended" or "hybrid" approach) had a larger advantage relative to purely face-to-face instruction than did purely online instruction. Shortly thereafter the Community College Research Center responded, raising concerns about the conclusions from the U.S. Department of Education's report, pointing out that their findings do not hold true for fully online, semester-length college courses, and that the courses studied were taken by well-prepared university students rather than traditionally underserved students who are said to be the greatest beneficiaries of accessing online education (Smith Jaggars & Bailey, 2010). There are also those that question whether distance education and classroom instruction can really be compared. Shale (1990) asserts that everything that constitutes education in the

face-to-face environment should be the same from a distance (Barnard et al., 2004). However, Kozma (1994) and Cobb (1997) point out that when the medium of education shifts from the teacher to the learner, it completely changes the experience, perhaps making face-to-face learning and distance learning incomparable (Barnard et al., 2004). Barnard et al. (2004) have identified a practical reason for assessing the effectiveness of distance education in comparison with classroom learning – the technological resources available today have created competition for traditional educational institutions to dive into the market of online learning, making the question of whether distance learning is as effective as classroom learning a very pressing matter.

What is clear is that the components that enhance classroom education, such as community, timely feedback, and clear expectations, are equally important in online education (Perry & Pilati, 2011). Mastering the technology to deliver the online course or re-creating the classroom in the online environment will not lead to student success or satisfaction. Creating a conducive online learning environment requires appropriate use of both pedagogy and technology (Menchaca & Bekele, 2008).

Online learning environments eliminate barriers of time and space, while increasing access to higher education; however, they also challenge our traditional styles of teaching and learning (Garrison, 2011; Swan & Shih, 2005). As online programs in higher education become more prevalent, research has been directed toward the effectiveness of online learning. According to Perry and Pilati (2011), there are three issues that rise to the surface when examining the effectiveness of online learning: student perceptions, faculty perceptions, and educational outcomes.

Student perceptions. One of the most important aspects of online education is how the student perceives the online learning experience (Somenarain, Akkaraju, & Gharbaran, 2010). Positive online learning experiences lead to an increase in student engagement, persistence, and perceived learning. Generally, student perceptions of online learning are positive, with most students reporting a moderate to high level of satisfaction with their online experience (Perry & Pilati, 2011). In previous studies students have identified flexibility and convenience as strengths of online learning. It has also been found that students who felt more at ease using the Internet were more likely to be satisfied with their online learning experience (Rodriguez, Ooms, & Montanez, 2008). Although there is concern that online learning can inhibit interaction and social bonding, research suggests that the flexibility inherent in online courses may allow students to reach intimacy levels comparable to face-to-face groups, although it may take longer to develop (Arbaugh, 2000).

Another aspect of online learning that students have identified as a strength is the asynchronous style of discussion and participation. Although some have considered this to be a limitation of online learning, it has been found that it may actually enhance communication because students have the opportunity to be more reflective and thoughtful as they respond to questions and discussions (Arbaugh, 2000). Specifically, responding in writing requires them to think more deeply about a subject area as compared to providing verbal responses in the classroom where they sometimes have to compete for recognition (Song, Singleton, Hill, & Koh, 2004). Borup, West, & Graham (2012) found that the majority of students who interacted with asynchronous video in their online course felt as though they were communicating directly with their instructor, and some indicated that their interaction with the instructor was similar to what they experienced in a face-to-face classroom.

As Rodriguez et al. (2008) point out, student satisfaction with online courses is multidimensional and includes aspects related to learner-instructor interaction, learner-learner interaction, learner-content interaction, course organization, support services/administrative issues, facilitator, technical support, and delivery method (Roberts, Irani, Telg, & Lundy, 2005). Because most online learning occurs asynchronously, where students are separated geographically and are not engaged at the same time, replicating the positive classroom components of interactivity and social presence is a critical aspect of student satisfaction for online students (Somenarain et al., 2010; Perry & Pilati, 2011). Delayed responses have been reported as a weakness of online learning for some students. The lack of immediacy in responses, both from other students and from the instructor, compared to what typically occurs in a face-to-face classroom can sometimes cause frustration (Song et al., 2004). This can lead to lack of a sense of community and feelings of isolation which diminish student satisfaction. Song et al. (2004) found that 71% of students who indicated they were less satisfied with online learning than traditional learning cited a lack of community as a major reason for their dissatisfaction. Another study found that 49% of students who had experience with online courses found the limited face-to-face contact to be the aspect of the course they liked least (Rodriguez et al., 2008). Finding ways to establish a strong community of learners through in-depth interaction among students and between the students and the instructor is essential to student satisfaction and learning in online education.

Faculty perceptions. Faculty perceptions are another important aspect of effectiveness in online education. Less than one third of academic leaders believe that there will no longer be faculty concerns about the relative quality of online courses in comparison to face-to-face courses (Allen & Seaman, 2014). One of the challenges of online education is the extensive

amount of time and effort faculty must commit to as they learn a new way of teaching that differs from the classroom-based methods traditionally utilized in education. Researchers suggest that faculty need to learn a different set of teaching skills to transform into a new role as discussion facilitator and manager, requiring focused efforts on clear and consistent course structure, frequent instructor interactions with a sense of immediacy, varied instructional approaches, and use of a conversational style in online communications to encourage valuable and active course discussion (Arbaugh, 2000; Gallagher-Lepak, Reilly, & Killion, 2009).

The quality and successful implementation of online programs is strongly correlated with the professional development of faculty who teach online. It is essential that organizations provide support and professional development opportunities to teachers to help them adopt online pedagogical practices and reconstruct their teacher persona in the virtual environment (Baran & Correia, 2014). Research in online teaching has identified that the following factors contribute to the success of online courses (Baran & Correia, 2014):

- Time invested on planning and organization of online courses
- Efforts put into managing courses
- Increased teaching presence
- Increased social presence

These factors are essential to student satisfaction, perceived learning, and the development of cognitive and social skills (Gorsky & Blau, 2009). Baran, Correia, and Thompson (2013) and Dawley, (2007) have identified specific practices that successful online teachers follow:

- Knowing and creating the course content
- Designing and structuring the online course
- Knowing the students

- Enhancing teacher-student relationships
- Guiding student learning
- Evaluating online courses
- Maintaining teacher presence
- Self-discipline
- Facilitation of individual and group learning
- Prompt feedback to students

For faculty to successfully maneuver the transition to online teaching, they must reconsider their teaching practices and their beliefs about how students learn.

Throughout the literature, the community of inquiry (CoI) model is cited as a tool that reflects the principles of best practice in teaching, particularly in the online environment. The term "community of inquiry" was originally coined by Charles Sanders Pierce in relation to practitioners of science who were considered to be part of a community because they were dedicated to pursuing identical goals using like procedures (Lipman, 2003). Lipman (2003) broadened the use of the phrase to education, with the goal of "converting the classroom into a community of inquiry in which students listen to one another with respect, build on one another's ideas, challenge one another to supply reasons for otherwise unsupported opinions, assist each other in drawing inferences from what has been said, and seek to identify one another's assumptions" (p. 21). Garrison, Anderson, and Archer (2000) developed the CoI model in the context of computer conferencing in higher education, as a theoretical framework to study online teaching and learning and to identify the elements that are crucial for a successful experience in higher education. It is based on the work of John Dewey, and is consistent with constructivist approaches to learning in higher education which posits that knowledge is not passively received,

but constructed by individuals to make sense of their experiential world (Garrison, 2007; Yilmaz, 2008).

The CoI framework assumes that learning occurs within the community through the interaction of three core components: cognitive presence, social presence, and teacher presence (Garrison et al., 2000). Cognitive presence refers to the extent to which participants can construct and apply meaning through sustained reflection and communication. It is established in four phases: problem identification, individual and collective exploration of the problem, integration or meaning construction, and resolution or application of meaning to new contexts (Garrison et al., 2000). The instructor greatly influences cognitive presence through instructional design, course structure, leadership and questioning (Kumar, Dawson, Black, Cavanaugh, & Sessums, 2011). Social presence, the second component of the framework, has been found to influence cognitive presence in online courses (Rovai, 2002). Social presence is defined as the way that learners portray themselves through their online interactions, specifically, how they project their personal characteristics into the community (Garrison et al., 2000). Sometimes referred to as sense of community, a strong social presence establishes student trust, reliance and sense of belonging, and is considered a requirement for achieving in-depth intellectual discourse (Kumar et al., 2011). The impact of social presence has been studied by many researchers who have found that not only does it impact cognitive presence, but it also influences learning outcomes and satisfaction with instructors (Gorsky & Blau, 2009; Kumar et al., 2011). The third component of the CoI framework is teaching presence, which Anderson, Rourke, Garrison, and Archer (2001) define as the "design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (p.5). Teaching presence involves instructional design and organization, facilitating

discourse to build understanding, and direct instruction (Anderson et al., 2001). In an online environment, where face-to-face interaction is limited or all together absent, teaching presence becomes even more important. Several researchers have found that it is crucial for student learning, student satisfaction, and for the creation of a community of inquiry (Kumar et al., 2011). Palloff and Pratt (2007) have established a similar model that identifies three elements that must be present for an online community to form: people, purpose, and process, which they indicate aligns with the CoI framework.

Educational outcomes. The third area to examine in relation to online learning is educational outcomes. As cited previously, the U.S. Department of Education's (2010) meta-analysis made a strong case for the effectiveness of online learning in comparison to traditional learning, despite its critics. The most compelling finding was that on average, students who took all or part of their class online performed better than those taking the same course through face-to-face instruction. There have been many studies over the last several years that indicate similar findings, and as Swan (2003) points out, "we now have good and ample evidence that students generally learn as much online as they do in traditional classroom environments" (p. 13). One study compared the performance of students in a graduate course taught online with those in the same course delivered face-to-face. The study compared student ratings of instructor and course quality, assessment of course interaction, structure, and support, and learning outcomes such as course grades and student self-assessment. Although results revealed that students in the face-to-face course had slightly more positive perceptions about the instructor and overall course quality, there was no difference between the two courses in several of the measures related to learning outcomes (Johnson, Aragon, Shaik, & Palma-Rivas, 2000). In a two-year study of undergraduate students taking an online Introduction to Psychology course, it was found that mastery of the

course content and performance on exams were better for those in the online offerings of the course than for those in the face-to-face offerings (Maki, Maki, Patterson, & Whittaker, 2000). Online and traditional students in higher education have been studied by several researchers who have compared midterm exam scores, role simulations, course grades, course objectives, and clinical competence and all have resulted in no significant differences in outcomes (Swan, 2003). In fact, Thomas Russell (1999) compiled a body of research going as far back as 1928, comparing student outcomes between face-to-face and distance delivery courses. He found that when the course materials and teaching methods were held constant, there were no significant differences between student outcomes in distance courses compared to face-to-face courses, thus concluding that the medium seldom determines learning effectiveness, and highlighting the course design and pedagogy as the most important factors. That is not to say that there are no studies reporting poorer learning outcomes in online courses, however, those studies are few and far between.

The Role of Community

The concept of community, in general, has gained attention in recent years in the field of education and beyond for two reasons. First, there is a perception that sense of community in the United States is lacking (Etzioni, 1993). This was examined extensively in Putnam's (2000) work *Bowling Alone* which indicated that community engagement decreased significantly over the last third of the 20th century. Involvement in civic associations, public affairs, churches, social clubs, and unions have all fallen by 25-50%, as has time spent with family, friends and neighbors, philanthropic giving, and trust in others (Putnam & Feldstein, 2003). Various reasons related to technological, economic and social changes have been cited as causes for this decline. Second, technological advances such as the Internet, mobile technology, and social media, have

increased our ability to communicate and share information, but have physically separated us even further. Technology has changed the way we perceive community from a place-based notion to one formed through identity and shared values (Palloff & Pratt, 2007). What this means for education is an increase in distance education through online learning requiring a new vision of what community in education looks like for students who are physically separate and communicating asynchronously.

Scholars such as Dewey (1933), Vygotsky (1978), and Sergiovanni (1994) recognized early on that community is central to the learning process. Their work acknowledged that learning is social, and that effective educational experiences require collaboration, sharing, and the integration of knowledge in a learning community. Today this phenomenon is referred to as sense of community, and it has been an area of study that has expanded in recent years as our educational communities become more virtual.

The current research on community in relation to online learning refers primarily to the term "sense of community" or "psychological sense of community". Sense of community is defined in various ways throughout the literature. The concept gained attention with Seymour Sarason's (1974) seminal work which asserted that community psychology must address the decline of the psychological sense of community in order to make any progress toward social reform. He described it as "the sense that one was part of a readily available, mutually supportive network of relationships upon which one could depend" (p.1) and identified it as having the following characteristics: the perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain that interdependence by giving to or doing for others what one expects from them, and the feeling that one is part of a larger

dependable and stable structure (p. 157). Sarason (1974) suggests that the psychological sense of community be the overarching criterion by which any community is judged.

More recently, Newbrough and Chavis (1986) agree that sense of community is psychological and refer to it as the personal knowing that one has about belonging to a collective. Unger and Wandersman (1985) related sense of community to the neighborhood collective, describing it as "feelings of membership and belongingness and shared socioemotional ties" (p. 155). McMillan and Chavis (1986) define it as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9). They go on to propose four principles of sense of community: membership, influence, sharing of values, and shared emotional connection.

Drawing on the work of these scholars, Alfred P. Rovai (2002) has defined classroom community as consisting of two components: feelings of connectedness among members, and commonality of learning expectations and goals. Connectedness is "the feeling of belonging and acceptance and the creation of bonding relationships" (Rovai, 2002, p. 322). Students who feel connected identify themselves as recognized members of a community, where friendships and cohesiveness among the group lead to a safe and trusting environment allowing for open dialogue. Such forthright communication is important to a learning community not only because it increases the sharing of information from which all can learn, but also because it opens the door for students to express gaps in their learning that their fellow community members can support them through. His second component of classroom community, commonality of learning, is "the feeling that knowledge and meaning are actively constructed within the community, that the community enhances the acquisition of knowledge and understanding, and

that the learning needs of its members are being satisfied" (Rovai, 2002, p. 322). In addition to feeling connected to the group, students must also be committed to the common goal of learning.

Rovai (2002) goes on to describe classroom community as a feeling that members have of belonging, and that they matter to one another and to the group, that they have obligations to one another and to the school, and that they possess shared expectations that members' educational needs will be met through their commitment to shared learning goals. "A classroom community can therefore be viewed as a social community of learners who share knowledge, values, and goals" (Rovai, 2002, p. 322). He goes on to explain that a strong classroom community is one where learners:

- Feel connected to each other and to the instructor
- Communicate in ways that reduce social and psychological distance among the people
- Share common interests and values
- Trust and help one another
- Actively engage in two-way communications
- Pursue common learning objectives

As Palloff and Pratt (2007) point out, much research has been conducted in recent years regarding the importance of community in online courses. It is generally accepted that the social context greatly affects the activities associated with learning and their outcomes (Garrison et al., 2000). Community is an essential component of higher-order thinking and must be present in order for critical thinking and deep learning to occur, leading to a meaningful educational experience (Lipman, 1991). Several researchers indicate that strong feelings of community increases student persistence in their courses, as well as increasing the commitment to group

goals, cooperation among students, satisfaction with group efforts, and motivation to learn (Rovai, 2002).

Rovai (2002) asserts that one of the key findings of research in the area is that effective schools provide students with a supportive community. Rovai defines classroom community in terms of four dimensions: spirit, trust, interaction, and commonality of expectation and goals related to learning. Spirit refers to being recognized as a member of the community and the feelings of friendship, cohesion, and bonding that develop among learners. Such a spirit of community allows learners to challenge and nurture one another – without that spirit students can feel lonely and isolated with low self-esteem and low motivation to learn leading to low achievement and attrition. Trust allows community members to trust and rely on other community members with confidence. It has two components: credibility, being able to rely on the word of others, and benevolence, garnering interest and the willingness to assist in the welfare of other community members. This increases the likelihood of candor, where members feel safe to share their knowledge and ask for support when there are gaps in their knowledge. Without this, students become less empowered requiring the instructor to drive the interactions rather than the students constructing knowledge together. Interaction among learners is the third dimension, which focuses on the quality of the interactions rather than the quantity (Rovai, 2002). These interactions are distinguished as either task-driven or socio-emotional-driven (Hare & Davis, 1994). Task-driven interactions are directed toward completing tasks and are often driven by the instructor which can be problematic if students are fearful of retaliation or criticism. Instructors must be mindful of those fears so that they don't negatively affect the sense of community. Socio-emotional-driven interactions contribute to relationships among the learners and are self-generated. The more these types of interactions occur, such as self-

disclosure and compassionate messages among learners, the more learners will engage in such socializing behaviors, further strengthening the community. The final dimension of commonality of goals and expectations for learning reflects the commitment the community members have to their common goal of education and quality learning. This dimension goes beyond just adding to a student's knowledge and supports the idea that learning involves active participation leading to deeper understanding and transformation (Rovai, 2002).

Focusing on sense of community as essential to learning, instructors must focus less on delivering content and more on designing instruction so that learners have the opportunity to actively collaborate to construct knowledge (Barnard et al., 2004; Kozma, 1991). The literature identifies seven factors that instructors can address in their teaching to contribute to a strong sense of community in a distance learning environment (Rovai, 2002):

1. Transactional Distance: Defined as the psychological and communications space between learners and instructors (Moore, 1993). Transactional Distance is composed of structure, which is instructor-imposed control over the learning environment, and dialogue, which is control exercised by the learner. More structure increases psychological distance and decreases sense of community while more dialogue decreases psychological distance and increases sense of community. Instructors of effective online courses reduce transactional distance by utilizing technology to enhance communication and ensuring that learners understand that participation is a course requirement and a graded component of the course.
2. Social Presence: Cutler (1995) asserts that social presence in the virtual environment is about students having "reciprocal awareness" of one another. Without face-to-face

communication and social cues social presence is lower requiring instructors to find ways to increase social presence to enhance the sense of community.

3. Social Equality: Online instructors must establish an inclusive online environment and ensure that all students have equal opportunity to participate in course discussions.
4. Small Group Activities: Small group work allows students to make connections with one another and become more meaningfully engaged in the learning process, further promoting a sense of community.
5. Group Facilitation: Facilitating group tasks and group cohesion must occur to spark student interaction and discourse. With the potential miscommunication that can occur with asynchronous communication, facilitating group discussions and activities becomes a critical aspect of teaching an online course.
6. Teaching Style and Learning Stage: When instructors align their teaching style with the stages of learning (dependent learner to interested learner to involved learner to self-directed learner), a strong sense of community is supported. Effective online instructors design and facilitate their course on a situational basis that accommodates the needs of learners in all stages.
7. Community Size: Community size in a virtual environment has a great impact on learning activities. Too few members generate little interaction while too many members can generate so much interaction that it is overwhelming. Although situational, it has been found that 8-10 students is a reasonable minimum requirement while 20-30 students is an appropriate maximum when there is one instructor involved.

Similarly, Palloff and Pratt (2007) have identified the steps required for building and maintaining a virtual community. They believe that by implementing these strategies that a connection among the members will form that rivals those in face-to-face communities:

- Clearly define the purpose of the group
- Create a distinctive gathering space for the group
- Promote effective leadership from within
- Define norms and a clear code of conduct
- Allow for a range of member roles
- Allow for and facilitate subgroups
- Allow members to resolve their own disputes

Faculty who utilize these strategies in their teaching represent a paradigm shift in higher education where producing learning is a major focus. As Barr and Tagg (1995) pointed out in 1995, colleges and universities were beginning to move away from a faculty-centered, lecture-based approach to a learner-centered approach, which aligns well with the online environment. That trend continues as more learning happens online. Learning online requires a set of skills not usually associated with learning in the classroom. Online learners are encouraged to be more autonomous, resourceful, and independent – all characteristics that are consistent with a learner-centered approach (Palloff & Pratt, 2007). In order for effective, learner-centered teaching to occur in the online environment, several changes need to occur from the traditional teaching practice (Palloff & Pratt, 2003):

- The balance of power needs to shift from the instructor as the purveyor of knowledge to a facilitator who encourages students to take charge of their own learning process.

- The function of content needs to change so that rather than providing facts and information, learning resources and instructional activities are made available to students so that they can discover the information themselves to create knowledge and meaning together.
- The role of the teacher must change from being viewed as the key content expert to acknowledging and facilitating the significant contribution students make to the learning process.
- The responsibility for learning needs to change so that students are encouraged and empowered to take responsibility for their own learning process.
- The purpose and processes of evaluation need to adjust so that they are aligned with learning objectives for the course and consistent with the types of learning activities utilized in the course. This should include self-assessment for students to reflect on their learning and demonstrate their mastery of course concepts.

The very nature of online education sets the stage for bringing students together by increasing accessibility and connectivity, and uniting people in a common goal (Kearsley, 2000). To further engage students in a learner-centered approach that enhances sense of community, the online environment is rich with technological tools that educators can implement in their courses. Tools such as e-mail and discussion boards are commonly used to facilitate asynchronous online communication. The use of blogs has gained attention over the last few years, as they are an effective way to spread ideas quickly, and share thoughts and ideas to foster discussion and information sharing. Wikis (a term that means "quick" in Hawaiian) are tools that allows users to add and edit content with a Web browser, to create a collaborative knowledge base of

information. They are known for their open editing capability, allowing anyone who has access to it to edit the content or organization of the site (Fichter, 2005).

To support synchronous online communication, instant messaging, online chats, and video-call software such as Skype are often used to provide immediate, real-time communication online. Web conferencing software can be used to conduct webinars, meetings, lectures, and study sessions synchronously, while allowing them to be recorded for asynchronous viewing. There are also tools used for online document collaboration, such as a blackboard system (BBS), a computer application used to exchange messages and files, and Google Docs, software that allows several individuals to create and edit the same documents at the same time. All of these tools can be utilized to share information and allow for open dialogue where students can express themselves and share knowledge and experiences, increasing trust among the group and enhancing sense of community. Although such technologies are increasingly available, as Vallance, Towndrow and Wiz (2010) point out, it does not necessarily mean learners will use them to interact and collaborate. In order for such collaboration to occur effectively, educators must be clear about how the technology adds value to the learning process and give careful consideration to the roles, responsibilities, processes and outcomes.

Adult Learners Online

Learning is defined by psychologists in various ways, but two aspects are common among most definitions: that learning involves change, and that such change is permanent in that it leads to altered behavior (Brookfield, 1983). Learning can be formal or informal and can occur in a variety of settings. For the purposes of this study, focus will remain on formal learning in higher education, specifically in the online environment.

There are several major theories on adult learning, including andragogy, self-directed learning, experiential learning, and transformational learning. One of the most influential scholars in this area was Malcolm Knowles, who first introduced the United States to the idea that adults and children learn differently in the early 1970s through the concept of andragogy which is defined as "any intentional and professionally guided activity that aims at a change in adult persons" (Knowles, Holton, & Swanson, 2005, p. 60). Although this sparked much debate among education theorists, the principles of andragogy persist today and as Brookfield contends, it is the "single most popular idea in the education and training of adults" (Knowles, Holton, & Swanson, 2005, p. 2). Knowles, Holton & Swanson (2005) assert that subscribing to the core principles of andragogy allow instructors and facilitators to build more effective learning processes for adults.

Knowles' work shifted the focus from the teaching and learning of children, known as pedagogy, to the teaching and learning of adults (andragogy). He proposed that adults require a learner-centered environment that fosters trust and mutual respect (Snyder, 2009), and he identified six adult learning principles that comprise andragogy in practice: the need to know (adults need to know why they need to learn something before they proceed), the learner's self-concept (they need to be treated as being capable of self-direction), the role of the learner's experience (the quantity and quality of the adult's experience needs to be acknowledged and valued), readiness to learn (adults become ready to learn when they can apply their new knowledge to real-life situations), orientation to learning (adults have a life-centered orientation to learning and are motivated to learn when it will assist them with tasks or problems), and motivation (adults are driven to learn by internal desires).

Stephen Brookfield holds a similar view to Knowles. Like Brookfield, this study will subscribe to the National Advisory Council for Adult Education's paradigm that views an adult learner as one "who is enrolled in any course of study, whether special or regular, to develop new skills or qualifications, or improve existing skills and qualifications" and the National Center for Education Statistics' definition of adult education as "courses and other educational activities, organized by a teacher or sponsoring agency, and taken by persons beyond compulsory school age" (Brookfield, 1986, p.5). In addition to the obvious aspect of adult learning that the participants have achieved the status of adulthood, there are several commonalities that encompass what one would consider adult learning. First, adult learners are engaged in purposeful exploration of a field of study or collection of skills in a collaborative reflection upon common experiences. Second, these explorations take place in a group setting, and third, the learners contribute their experiences, skills, and knowledge to the learning process. It is through the sharing of those experiences that new knowledge is constructed, that curricular resources are established, and that interactions among those in the group will manifest. Respect of the individual experience is integral to adult learning, requiring continual assessment and renegotiation of the teaching and learning process in order for it to be effective (Brookfield, 1986).

Understanding adult learning theory is essential to creating meaningful online educational experiences for adult students. As indicated above, adult learners are goal-oriented and experience-based. They retain knowledge when they are able to take what they are studying and apply it to their practice. For this reason it is recommended that an online course be structured to provide experience first, and then the theory on which the experience is based (Palloff & Pratt, 2003). Adults tend to do better with ambiguity, open-ended assignments, independent projects

and self-designed learning experiences than traditional undergraduate students. So in the online environment, adults have an easier time of organizing tasks for themselves and with others to complete an assignment successfully. However, it is still important to provide structure. Palloff and Pratt (2003) have found that when working with adults, the more explicit the course expectations are, the more likely they are to succeed.

Palloff and Pratt (2003) contend that Bond and Griffin's six learning capabilities are important to examine in relation to online adult education. They assert that regardless of learning preference, we all possess these six capabilities: rational, emotional, relational, physical, metaphoric, and spiritual. Because online education is mostly text-based, which focuses on the rational, educators need to find ways to facilitate the other dimensions of learning in order to fully engage students. To employ all six capabilities online requires more personalization, a strong learning community, and collaborative course activities. Palloff and Pratt (2003) propose that the following aspects of online learning are used to develop and engage each capability:

1. Rational: Presentation of course content.
2. Emotional: Allow for emotion in communication, particularly in the sharing of real-life experiences.
3. Relational: Require regular use of the online discussion board, including a social area or activities so that the learning community can get to know one another and develop a rapport.
4. Physical: Ability to work anytime, anywhere and creating a safe, inviting online course environment.
5. Metaphoric: Use of metaphors to link new knowledge with personal experience, holding office hours online.

6. Spiritual: Establishing a strong community with intimate relationships where the members share their life and experiences and ritual celebrations are included.

By being mindful of these aspects of learning, educators can create strong learning communities that are effective for all learning styles and preferences.

In addition to learning preferences, the typical characteristics of adult learners need to be considered. Generally, adult learners have many competing responsibilities that can interfere with the learning process. That said, most adults enter an educational program voluntarily and are highly motivated and task-oriented. Biological changes also impact adult learners. For example, it has been shown that memory decreases with age, requiring adult students to adapt their approach to learning large amounts of new information (Cercone, 2008).

Through her examination of adult learning theory and characteristics of adult learners, Cercone (2008) developed a framework of 13 characteristics of adult learners that should be considered when designing an online course.

1. Limitations (such as decreased memory)
2. Learning styles
3. Active involvement in the learning process
4. Scaffolding
5. Pre-existing learning history requiring support to adjust to a new paradigm
6. Instructor as facilitator
7. Acknowledgement and consideration of prior experience
8. Link between knowledge and application to real-life
9. Learner-centered approach
10. Opportunities to test their learning

11. Collaboration, respect, mutual and informal
12. Time for self-reflection
13. Dialogue and social interaction

Although all of these strategies may not be applicable in every online experience, understanding the learning needs of adults along with the strengths and limitations they bring to a virtual learning environment provide a strong foundation for effective online education.

Measuring Community Online

Several studies have been conducted to fully understand sense of community in the online environment. Some studies focus on a particular aspect of community, such as student interaction, while others take a more broad approach, examining general contributors to sense of community and how that impacts persistence and cognition. Acknowledging that learning is a social process, and using the theoretical principles of adult learning along with principles of effective online learning, this study will focus on graduate students' perceptions of community in the online environment through these two research questions:

Primary Question: What are graduate students' perceptions regarding sense of community in the online graduate programs at a small, private college?

Secondary Question: What contributes to graduate students' sense of community in the online graduate programs at a small, private college?

Historically, studies of community have been qualitative, and have focused on specific aspects of community. However, there is a growing body of research that explores community quantitatively. Several recent studies measure sense of community with a quantitative approach using a survey instrument based on the Community of Inquiry (CoI) model or using the Classroom Community Scale (CCS).

Community of Inquiry (CoI) Survey Instrument. The CoI framework has been used extensively in the research, but has historically been studied using a qualitative approach focused on individual elements of the framework. Garrison, Cleveland-Innes, and Fung (2010) expressed the need to quantitatively explore the causal relationships among all of its core elements (teaching presence, cognitive presence, and social presence) to gain a better understanding of how the presences influence one another. To meet this need the researchers developed an instrument constructed from the empirically confirmed indicators of each of the three elements of the CoI model. Under the premise that moving to an online educational experience requires a role identity adjustment for students, and that engagement in an online community of inquiry is critical to the development of that identity, this study sought to validate the instrument to identify the core CoI elements and conditions associated with role adjustment to online learning. This was an exploratory study conducted to explore the factor structure of the instrument developed to assess role adjustment in an online asynchronous community of inquiry to determine whether it reflects the elements of the conceptual model. Students in two graduate programs completed two questionnaires, one assessing the anticipated quality of their participation in various online activities as compared to their participation in previously experienced face-to-face learning activities, and a second questionnaire assessing the same learning activities as compared to the perceived activities of experienced online learners. It was found that the instrument did reflect the CoI model and that it was useful in refining the items for the questionnaire (Garrison, Cleveland-Innes, & Fung, 2004).

Arbaugh (2008) surveyed students from 55 online MBA courses to examine whether the CoI elements exist in online management education courses and whether the elements are associated with perceived learning and satisfaction with the delivery medium. The study used an

exploratory factor analysis and regression analysis to report empirical verification of the elements of the CoI framework. Based on these studies, a group of researchers sought to develop a common instrument to study the CoI framework. A 34 item instrument using a Likert-type scale was developed and distributed to Master and Doctoral students at 4 institutions with 287 students participating in the study. Results of a factor analysis provided evidence that an online community of inquiry does emerge out of social, cognitive, and teaching presence. This resulted in a "measurement tool of agreed upon and statistically validated items that operationalizes the concepts in the CoI model" (Swan, et al., 2008, p. 8). Garrison, Cleveland-Innes and Fung (2010) went on to examine the CoI causal relationships again using the now validated CoI Survey Instrument to survey two Master's degree programs with 205 students completing the survey. They used exploratory factor analysis and confirmed the relationships among the three presences as well as the validity of the theoretical structure of the instrument.

Classroom Community Scale (CCS). The Classroom Community Scale (CCS) is another tool that has been used throughout the research to study community in the online environment. The tool was developed by Rovai and deemed valid and reliable for use with university students taking distance courses via the Internet in 2002 when he collected data from 375 students in 28 different online graduate courses. The instrument consists of 10 items related to feelings of connectedness and 10 items related to feelings "regarding the use of interaction within the community to construct understanding and the extent to which learning goals are being satisfied within the classroom setting" (Rovai, 2002, p. 202). It generates an overall classroom community score as well as two subscales: connectedness and learning. Rovai (2002) went on to use the CCS in a study to determine if a relationship exists between sense of community and cognitive learning in an online educational environment using a correlation

design and multiple regression procedures. Three hundred fourteen (314) graduate students in online courses at a Virginia university participated and data was gathered both from the CCS as well as from a self-report single-item scale measure of perceived cognitive learning. Rovai and Jordan (2004) used the CCS in a causal-comparative design to study the relationship of sense of community between traditional classroom, blended, and fully online learning environments in higher education. A multivariate analysis of covariance (MANCOVA) was used to analyze the data which suggested that blended courses produce a stronger sense of community among students than traditional or online courses. Shackelford and Maxwell (2012) explored the types of interaction that are most predictive of students' sense of community in online graduate courses through a non-experimental, quantitative, descriptive study. They used the CCS to measure sense of community as well as a survey developed by the author to measure interaction type and frequency.

Although there is evidence to support the validity and reliability of each instrument, and they are both used regularly throughout the research, the CCS most closely aligns with the intent of this research study which is to gather data from students regarding sense of community to inform online teaching practices. As Rovai (2002) points out, the CCS can assist educators in conceptualizing how sense of community can be nurtured in distance learning environments and help identify course design and instructional delivery strategies that best promote a strong sense of community. Although the CoI Survey Instrument acknowledges that effective online learning requires the development of a community, the focus of the instrument is on measuring students' perceptions of presence in the online course rather than their perceptions of community. Thus the CCS will be deployed to gather quantitative data regarding graduate students' perceptions of

community followed by personal interviews to gather specific information on strategies that contribute to sense of community in online courses.

Summary

The impact sense of community has on the learning process cannot be ignored. The growth of online learning requires that effective strategies be identified to determine how to establish a strong sense of community in a virtual environment. To achieve this goal, students' perceptions of community must be examined to identify factors that contribute to a strong sense of community in online courses.

Chapter 3 Methodology

Introduction

Research is defined as "the systematic process of collecting and logically analyzing data" for a specific purpose (McMillan & Schumacher, 2010, p.8). At the heart of this process are the research methods, or the mechanisms used to collect and analyze data in a systematic and purposeful way. Determining the appropriate methodology requires reflection on the purpose of the study so that the methods used will give the most reliable answer to the research question.

According to McMillan and Schumacher (2010), there are four major functions of research that serve to address the purpose of a study: basic, applied, evaluative, and action. Basic research seeks to generate knowledge by testing theories that provide generalizable findings, allowing the researcher to make predictions. Applied research is specific to a field of practice and focuses on applying and developing research-based knowledge about that practice with the intent of solving problems to improve practice. Evaluation research is specific to a given site. This type of research assesses the merit and worth of a particular practice to determine whether the practice works as intended at a specific site. Finally, action research involves the use of research methods by practitioners to study current problems or issues (McMillan & Schumacher, 2010, p.14). This study functions as applied research. Although I entered into this study with a predetermined theory that community is important for learning, I was not testing a predetermined hypothesis, rather, my intent was to acquire knowledge to improve teaching practices.

Research Design

Once the purpose of a study is clear, the research approach, or design, must be determined. The research design describes the procedures for conducting the study with the

purpose of specifying the plan for generating empirical evidence that will be used to answer the research question as credibly as possible (McMillan & Schumacher, 2010). McMillan and Schumacher classify research designs into the four categories of quantitative, qualitative, mixed method, and analytic. Analytic research is not being considered for this study as it consists of investigating concepts by analyzing documents that do not apply to the purpose for this research. Quantitative research emphasizes objectivity by using numbers and statistics to measure and describe results. On the other hand, qualitative research, although just as systematic, emphasizes data in the form of words rather than numbers to gather information on naturally occurring phenomena. Although quantitative and qualitative methods are the most common, recently many researchers have been combining characteristics of both approaches through a mixed method design. Proponents of mixed method research assert that such an approach allows for more integration and a more complete understanding of the research question. Creswell and Plano Clark (2011) contend that research problems best suited for a mixed method approach are those in which:

- One data source may be insufficient;
- Results need to be explained;
- Exploratory findings need to be generalized;
- A second method is needed to enhance a primary method;
- A theoretical stance needs to be applied; or
- An overall research objective can best be addressed with multiple phases.

My belief regarding this study is that using one approach will not be sufficient to fully answer my research questions and meet the purpose of the study. Although a quantitative approach alone would certainly provide valuable knowledge regarding students' perceptions of

community, it would not adequately address the factors that contribute to sense of community for application in practice. Conversely, a qualitative approach alone would not provide the objective, statistical foundation on which to base my investigation to uncover contributors to community. As McMillan and Schumacher (2010) point out, how one understands the world is an important distinction to address in relation to one's approach to research. My pragmatist worldview sees the value of both objective and subjective knowledge; thus, this study employs a mixed method approach utilizing a survey instrument and one-on-one semi-structured interviews to address the research questions:

Primary Question: What are graduate students' perceptions regarding sense of community in the online graduate programs at a small, private college?

Secondary Question: What contributes to graduate students' sense of community in the online graduate programs at a small, private college?

Mixed method approach. The mixed method approach for this study uses a sequential explanatory design, starting with the collection and analysis of the quantitative data from survey results, followed by the collection and analysis of qualitative data collected during one-on-one semi-structured interviews. The qualitative results were used to explain and provide deeper understanding of the quantitative results (Creswell & Plano Clark, 2011). The use of an explanatory design requires the researcher to use multiple philosophical assumptions and perspectives that align with my pragmatist worldview. This design is most useful when the researcher wants to assess trends and relationships utilizing quantitative data, but also be able to explain the reasons behind the trends. It is considered to be the most straightforward of the mixed method designs because the two methods are conducted in separate phases, allowing for a clear delineation for readers and the researcher (Creswell & Plano Clark, 2011).

Sampling. Sampling is a critical component of the research process. It has a strong impact on determining statistical significance, interpreting the meaning of results, and generalizing the conclusions (McMillan and Schumacher, 2010). Nonprobabilistic sampling, selecting individuals who were available and could be studied, was used for the quantitative research (Creswell & Plano Clark, 2011). All the students enrolled in all of the online graduate programs at the college were invited to participate. Generally, quantitative studies require large sample sizes in order to meet the requirements of statistical tests and obtain results that are generalizable to the larger population. Although this sample is not representative of the population of all online graduate students, for the purpose of this study, which focuses on one college, this method of selection is appropriate.

Stratified random sampling, dividing the population into subgroups based on a variable chosen by the researcher, was used for the qualitative research (McMillan & Schumacher, 2010). The population of participants who completed the survey in phase one of the study and volunteered to participate in phase two were separated into groups based on gender. Using nonproportional sampling, three participants were randomly selected from each group. This method of selection was determined through common practices of qualitative research. Unlike quantitative research, qualitative researchers typically select a small number of participants, such as 4 to 10, so as to develop an in-depth understanding of the phenomenon being studied (Creswell & Plano Clark, 2011).

Bias. Throughout the study my bias as a researcher was continually examined. McMillan and Schumacher (2010) refer to bias in research as both deliberate and unintentional influences that the researcher has on the participants. This influence could be anything from using a different tone of voice, to reinforcing different behaviors, to selectively engaging with

participants. As an alumna and current faculty and program director at the college where the study was conducted, I certainly had opinions and experiences that influenced my approach to the study. Awareness of my personal bias was an important strategy to reduce the impact it may have had on the study. Maintaining objectivity was paramount as I continually revisited the purpose of this study while examining and questioning how my experience may impact my approach, making adjustments as appropriate.

The study design was another strategy used to reduce bias. An established survey tool that was already deemed valid and reliable was utilized to eliminate bias that may have emerged from creating my own survey. It was also decided to maintain the anonymity of the survey responses so that particular responses did not influence the structure of the subsequent interviews.

Quantitative survey. Phase one of the study gathered quantitative data using the Classroom Community Scale (CCS), which is a valid and reliable survey instrument. Surveys are "information-collection methods used to describe, compare, or explain individual and societal knowledge, feelings, values, preferences, and behavior" (Fink, 2009, p. 1). They are best used when a researcher needs information directly from people about what they believe, know and think. Being that this study measures what students feel about community in their online classes, it is important to get information directly from them regarding their perceptions, so a survey was chosen as the best method to gather this data.

The CCS is a 20 item survey measuring students' sense of community in the virtual classroom, specifically in higher education. The instrument uses a five-point Likert-type scale of potential responses: strongly agree, agree, neutral, disagree, and strongly disagree. Participants choose the response on the scale that best reflects their feelings about each item.

The CCS survey was developed based on Rovai's (2002) research that identified characteristics of sense of community and defined it as feelings of connectedness, cohesion, spirit, trust, and interdependence among members. From that research 40 initial items were developed for the instrument, which were evaluated for content validity by a panel of experts. This resulted in a 20 item survey – 10 items related to feelings of connectedness and 10 items related to feelings regarding the use of interaction within the community to construct understanding and the extent to which learning goals are being met in the classroom (Rovai, 2002). The CCS provides an overall classroom community score as well as the two subscales of connectedness and learning. Rovai's research concluded that the CCS is a valid and reliable measure of classroom community. Permission was received from Dr. Rovai to use the CCS for this study, although it was modified slightly to meet the needs of this study by changing each item on the scale to address the program rather than a specific course. Two free-text questions were added to gather comments from the participants about their perceptions of community and online learning in general, as well as demographic questions regarding gender, age, ethnicity, the program in which the student is enrolled, the number of courses taken in the program in which the student is enrolled, whether the student is a full time or part time student, and the student's employment status (see Appendix A).

Participants. Participants for this study consisted of 305 students enrolled in online graduate programs. Because this study focused on graduate students (those who hold a bachelor's degree or above and are enrolled in a graduate program) it is assumed that these students are adult learners, at least 18 years of age or older. The students were at various points in the completion of their program so may have different levels of exposure to the online courses. All participants were volunteers, representing a volunteer rate of 17%.

Fifty-one (51) students participated in the study (see Table 3.1). One-third or 33% of the participants were male; 67% were female. 24% of the participants were age 25-34, 25% were age 35-44, 35% were 45-54, 14% were 55-65, and one participant was over 65 years old. Ninety percent (90%) of the participants who chose to indicate their ethnicity were White. Two participants identified themselves as Asian, and two identified themselves as Hispanic. One person indicated they were Black or African American, and one person identified as Native Hawaiian or other Pacific Islander.

Table 3.1

Demographics of Survey Participants

Variable	**Data**
Gender	Male: 17 (33%) Female: 36 (67%)
Age	25-34: 12 (24%) 35-44: 13 (25%) 45-54: 18 (35%) 55-65: 7 (14%) Over 65: 1 (.02%)
Ethnicity	White: 44 (90%) Asian: 2 Hispanic: 2 Black/African American: 1 Native Hawaiian or other Pacific Islander: 1

In addition to demographic data, participants were asked to supply data regarding the number of courses they had taken in their program, whether they were full-time or part-time students, and their employment status (see Table 3.2). Sixty-seven (67%) of the participants had taken three to six courses, 16% had taken two courses or less, 14% had taken seven to ten courses, and 4% had taken eleven to fourteen courses. Fifty-five (55%) of the participants were part-time students, while 41% were full-time students. Three students indicated that their full-time/part-time status as a student varies. Seventy-eight (78%) of the respondents indicated that they are employed full-time, while 22% identified themselves as employed part-time. One participant indicated that they are unemployed.

Table 3.2

Courses Taken, Student and Employment Status of Survey Participants

Variable	**Data**
Number of Courses Taken	0-2: 8 (16%) 3-6: 35 (67%) 7-10: 7 (14%) 11-14: 2 (4%)
Student Status	Full time: 21 (41%) Part time: 28 (55%) It varies: 3
Employment Status	Full time: 40 (78%) Part time: 11 (22%) Unemployed: 1

Setting. The study was conducted at a small, independent, private college in the Midwest. Those invited to participate in this study consisted of all students (305) enrolled in the five completely online graduate programs at the college (see Table 3.3). Courses in these programs were taught by different full-time and adjunct faculty during eight-week terms or sixteen-week semesters using the Blackboard learning management system. There was no attempt by the researcher to control the instructional design or delivery of courses in these programs.

Table 3.3

List of Programs, Enrollments, and % of Survey Participation

Program	Number of Students Enrolled	Percent of Survey Participation
Transitional Doctor of Physical Therapy	171	47%
Master of Education	58	16%
Rural Healthcare Master of Business Administration	26	16%
Master of Science in Health Informatics	25	14%
Master of Arts in Project Management	13	.06%
Master of Arts in Information Technology Leadership	12	.04%

Procedure. The survey was distributed electronically using Qualtrics, web-based survey software. Program directors from each program were contacted for permission to invite their students to participate in the study. An invitation to participate in the study was sent via email to all students (305) enrolled in the five completely online graduate programs at the college with a reminder email invitation sent after one week. The survey was available for two weeks. Those students who volunteered for the study by clicking into the survey indicating their consent, and completing the survey in its entirety were accepted as participants (n = 51).

Design. Quantitative research methods were used to analyze the data to determine if there were significant differences in the CCS raw score as well as the raw scores for the subscales of connectedness and learning for each independent variable. The analysis was conducted using R, a free software program for statistical computing and graphics.

Qualitative interviews. The second phase of the study gathered qualitative data through one-on-one, semi-structured interviews conducted with survey respondents to obtain details regarding factors that contribute to sense of community. As Kvale and Brinkmann (2009) indicate, "an interview is a conversation that has a structure and a purpose" (p. 3). Interviews are often used to understand the lived world from the perspective of a subject. The purpose of the interviews was to obtain cognitive clarification of the subjects' experience related to sense of community in the online classroom.

The interviews used in this study were semi-structured, consisting of eight questions developed by the researcher based on analysis of the survey results. Semi-structured interview questions have no choices from which the respondent selects an answer; rather, questions are phrased to allow for individualized responses (McMillan & Schumacher, 2010). This allows for uniformity, yet probing and clarification to gain depth of understanding about the student's experience. Because this study is focused on the experienced meanings of the subjects' life, the interview approach was phenomenological, pursuing an interest in understanding social phenomena from the subjects' perspectives and experiences with the assumption that reality is perceived (Kvale & Brinkmann, 2009).

Item generation. The interview questions were developed based on a review of the literature and findings from the survey. The literature suggests that a strong sense of community is established through interactions, collaboration, connectedness, and shared values and goals.

Items were developed to address these elements. In addition, the two subscales of connectedness and learning, which are identified as interpretable factors in Rovai's Classroom Community Scale (CCS), were used in developing the interview questions (Rovai, 2002).

Results from the survey were also analyzed to assist in item generation. The findings from the quantitative analysis revealed notable trends related to overall sense of community and gender, age, and the number of online courses completed by the participants. Questions related to these three items were included in the interview. Additionally, responses were compared using cross tabulation to examine trends and relationships among the variables. Four elements emerged as common themes among the responses: support, learning, connecting, and sharing. These themes were incorporated in the item generation process.

Based on the survey results and quantitative analysis, an interview guide was developed with an initial set of 10 questions. Two pilot interviews were conducted to test the interview questions. The pilot interviews revealed repetitive responses from participants for several questions, leading to refinement of some questions, and the elimination of two questions. The final interview guide consisted of eight questions, four of which were open-ended (see Appendix B). All eight questions were asked of each participant, with follow-up questions asked as appropriate to clarify information or gain in-depth understanding of the student's experience.

Participants. Participants for this phase of the study consisted of students who volunteered to participate during the survey. The participants were asked to volunteer for an interview through a question added to the survey. Students who were willing to participate indicated so through a positive response to that survey question at which time they provided their contact information. Twenty-eight (28) students volunteered to participate in the second phase

of the study. Out of the 28 who volunteered, six students (three men and three women) were randomly selected to be contacted for an interview ($n = 6$).

Procedure. The interviews were conducted over a two week period via telephone since the subjects live all over the United States. The interview questions were sent to the participants prior to conducting the interview. Each interview was recorded, transcribed, and subsequently reviewed for analysis.

Design. Qualitative research methods were used to analyze the transcribed interview results to determine students' perceptions regarding contributors to sense of community in online courses. The coding process was used to analyze the data. Coding involves attaching one or more key words to a text to organize and provide meanings into presentable forms (Kvale & Brinkmann, 2009). The coding process was data-driven in that the codes were not developed beforehand, but were developed through readings of the transcribed interviews.

Summary

This applied research sought to utilize a mixed method design to acquire knowledge that can be used in practice. By combining quantitative and qualitative approaches, objective and subjective data could be utilized to conduct an in-depth examination of sense of community in online learning. The results identified specific factors that impact students' perceptions of sense of community, as well as particular strategies that can be applied in educational practice online.

Chapter 4 Results

The results of this mixed method study used a quantitative survey to address the primary question regarding students' perceptions of sense of community in the online graduate programs at a small, private college. The quantitative results showed that gender, age, and the number of online courses taken by the student, influence a student's sense of community. To gain a deeper understanding of the quantitative results, a qualitative approach was used to determine what, specifically, contributes to graduate students' sense of community in the online graduate programs at a small, private college. Through semi-structured interviews it was found that discussions, synchronous activities, instructor presence, and the opportunity to share information and opinions impact students' sense of community in online courses.

Quantitative Survey

Phase one of the study used a quantitative survey to examine graduate students' perceptions regarding sense of community in the online graduate programs at a small, private college. Of the 56 students who volunteered to participate in the survey, 51 completed the survey in its entirety; those responses were used in the quantitative analysis. Two-sample t tests and a single-factor analysis of variance (ANOVA) were conducted to compare Classroom Community Scale (CCS) raw scores as well as the scores for the subscales of connectedness and learning for each independent variable. The independent variables included gender, age, ethnicity/racial group, academic program, number of online graduate courses taken, student status (full-time or part-time) and employment status.

Two-sample t tests were conducted to compare Classroom Community Scale (CCS) raw scores and subscale scores of connectedness and learning for each independent variable that included two groups (for example, gender). For those independent variables that included more

than two groups, such as age, a single-factor analysis of variance (ANOVA) was conducted to determine if there were significant differences in the CCS raw score as well as the scores for the subscales of connectedness and learning. Although there were limited significant findings, three areas of interest emerged from the analysis. A two-sample t test illuminated a notable trend related to gender, while the ANOVAs revealed interesting trends related to age and the number of online courses completed by participants. Together, these findings suggest further examination is needed.

As McMillan and Schumacher (2010) point out, two-sample t tests are used to determine if there is a statistically significant difference in the dependent variable between two different populations. The two-sample t test revealed a difference in the perception of community between genders ($t = 0.76$; $df = 23.1$; p-value = 0.46; Figure 4.1). It was found that male students had a higher CCS score than females. An ANOVA is an extension of the t test to test all possible pairs of means in a study of two or more groups, allowing the researcher to test the differences between all groups (McMillan & Schumacher, 2010). The ANOVA revealed that there were differences between age groups and feelings related to learning ($F= 2.6$; $df= 4$; p-value= 0.049). A Tukey post hoc test revealed that participants ages 55-65 (mean= 33.3; sd=3.9; Figure 4.2) had a significantly higher learning subscale score than those ages 35-44 (mean= 27.0; sd= 3.4; p-value= 0.029; Figure 4.2).

An ANOVA also found that there were differences in the number of courses the participants had taken, and their feelings of connectedness ($F= 2.0$; $df= 3$; p-value= 0.05). Participants who had taken 7-10 courses (mean=25.6; sd=4.5 ; p-value= 0.09), or 3-6 courses (mean= 24.3; sd= 5.2; p-value= 0.08), had a trend of higher connectedness subscale scores than those who had taken 2 courses or less (mean=19.4; sd= 4.9; Figure 4.3).

Figure 4.1. CCS Score by Gender

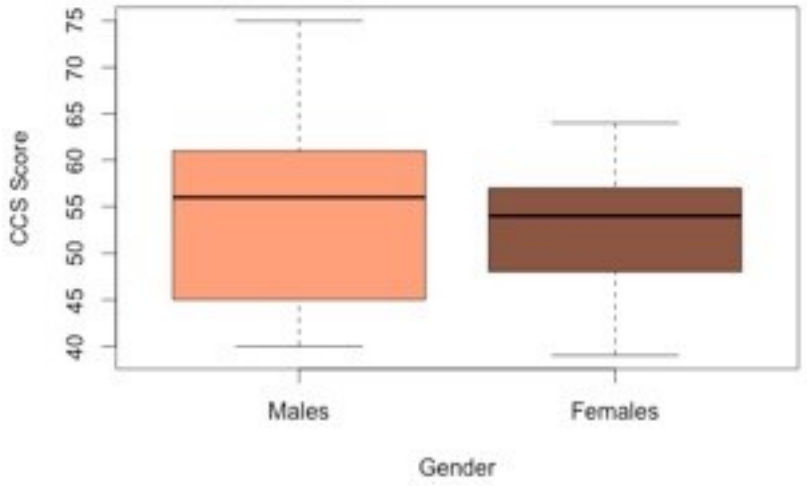


Figure 4.2. CCS Learning Subscale Score by Age

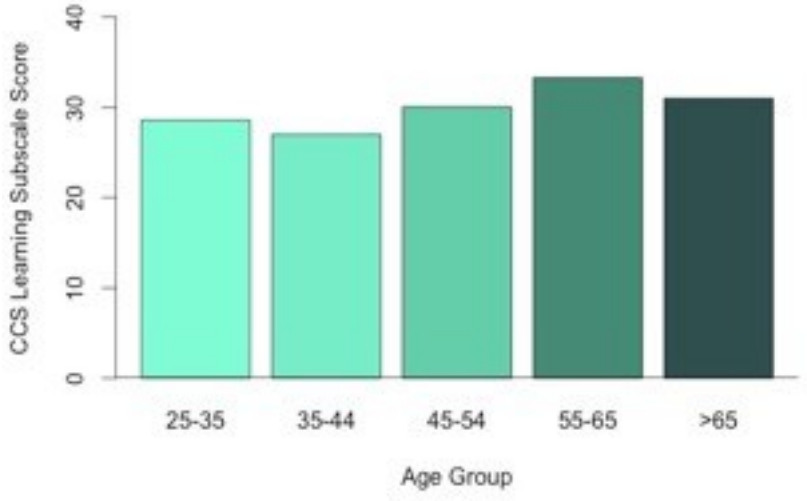
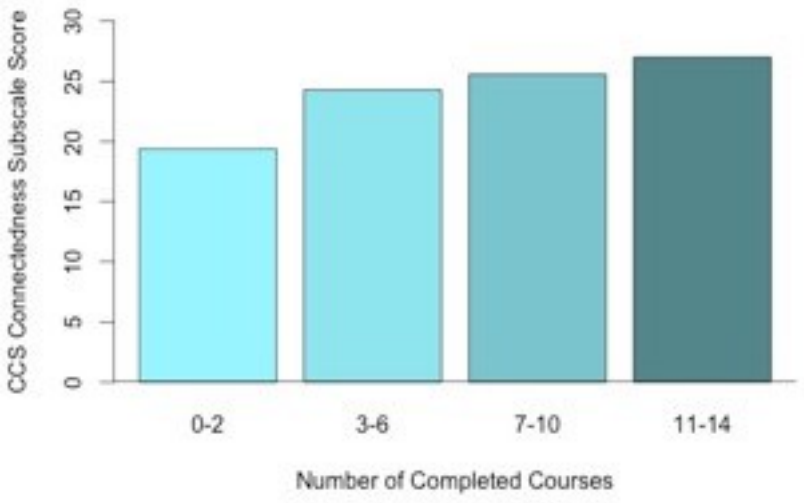


Figure 4.3. CCS Connectedness Subscale Score by Number of Courses Taken



Qualitative Interviews

Phase two of the study used a qualitative interview to determine what contributes to graduate students' sense of community in the online graduate programs at a small, private college. The transcribed interviews were analyzed to identify common elements, identified by the participants, as contributing to sense of community. The content analysis technique was used to identify, or code, the common elements and their occurrence among the participants. This made it possible to gain an overview of the large amounts of data collected through the interviews, and quantify how often each element was addressed (Kvale & Brinkmann, 2009). Although there were many components discussed by the participants as important to sense of community in online courses, four elements emerged most often among the participants: discussions, synchronous activities, instructor presence, and the opportunity for students to share opinions and perspectives.

Discussions. The element that was discussed most often by the participants in relation to sense of community was the use of online discussions as a mode of interaction and learning in their online courses. All six participants spoke about the online discussions as an important part of the interactions and collaboration that occurred in the class, and/or their feelings of connectedness. In particular, using the online discussions to interpret information and be exposed to other people's viewpoints contributed to their learning. Incorporating a personal touch within the discussions deepened the feeling of connectedness for several of the participants. Courses that included an "about me" post on the discussion board, or required that students add a picture of themselves to their online student profile made the discussions feel "that much more connected".

Three participants indicated that allowing some freedom of expression on the discussion board was important to their learning and connectedness. One participant asserted that discussion questions and topics that are too narrow do not allow students' personality or opinions to show through, which was important to her interactions and sense of community. Another participant indicated that discussion posts that are required to be formal in nature, using correct formatting and citation style, take away from the sense of community. A third participant agreed that sense of community is enhanced when students share their feelings and personality in their discussion posts, but, acknowledged that instructors are using the course interactions to instill professional behavior and rapport, and that some courses lend themselves better to such discussions than others.

Participants identified the asynchronous nature of online discussions as one of the biggest challenges to establishing a strong sense of community. It is common for students to be posting on the discussion board at various times because they reside in different time zones. Because

students are often not posting at the same time, or if students don't post in a timely manner, it can take away from the feeling of connectedness and the flow of the discussion that one feels when engaging in a live discussion.

Synchronous activities. Five participants indicated that live, synchronous activities, particularly video conferencing, were important to their sense of community. Four of those participants had used video conferencing, such as Adobe Connect or Wimba, in their current or previous courses, and all indicated that those live sessions were very helpful in contributing to their sense of community. Many of the sessions were led by the course instructor, and held at regular intervals throughout the semester. One participant stated, "I think every teacher should do that". Another participant pointed out that the structure of the live sessions is important. Allowing for interaction during a live session is critical to its impact on community, as those interactions "would contribute more to connectedness than listening to a presentation". Although the majority of participants had experience with formal, instructor-led live sessions, some participants believe that even an informal method of live interaction with classmates would be of value. One participant stated that "a video chat or an online chat room, whether it's led by the professor or not" would increase connectedness. Another participant described a "video or audio room" where there would be designated times for students to log-in and chat or help one another.

One out of the five participants that identified live sessions as important to community had not had any experience with live sessions in her courses, but asserted that "to have that face time, I think, would be hugely helpful". When asked if she believed having a face-to-face interaction would make her feel more comfortable sharing in class, she responded, "no", that it wasn't about comfort, rather, the personal-level interaction. She stated that a face-to-face

interaction establishes "a greater sense of connection and community because you know who you are talking to".

Instructor presence. Four participants identified the instructor as an essential component of sense of community. As one participant stated, "the instructor has a huge influence on the sense of community". Participants said that the instructor sets the tone for the course; if they are not consistently engaged in the course, then the students won't be engaged either. This means being available to students when questions are asked, showing interest in the students and course interactions, responding to discussion posts, and providing feedback. One participant said, "If a professor interacts in a meaningful way in group discussions, email and other forms of communication that are being used in that particular course, then you feel a very, very strong sense of community in that particular course." The timeliness of those responses was also indicated as an important aspect of an instructor's engagement in a course. One participant stated that a "prompt" response from the instructor enhances community, and two students specified 24 hours as an acceptable response time. One participant revealed that if an instructor did not respond to questions in a timely fashion, that it decreased his feeling of connectedness and "it makes me feel more isolated".

The instructor's teaching strategies, particularly related to the use of technological tools and the course design and structure, emerged as another factor impacting sense of community. Three participants indicated that a consistent course design or structure contributed to their learning and connectedness. As one participant described, "pretty much every class has been structured similarly so there's a nice continuity" which allows students to interact and collaborate in the course effectively. Specifically, participants appreciated having all of the course information clearly laid out from the start of the course, including a syllabus with clear

learning objectives and goals, and incorporating the use of rubrics. One participant explained that her instructors "promote the learning by giving you all of the tools necessary".

Participants also acknowledged that how instructors use tools in their courses impacts community. One participant indicated that having courses that follow a consistent structure utilizing consistent tools to facilitate learning, such as social media, Youtube, and weekly PowerPoint presentations, makes the common goal of learning attainable. Another participant described how her instructor's use of Twitter contributed to her sense of community in the course because it helped "seeing what other students were finding to relate to the course content". One participant expressed concern over constraints brought on by technology, such as the large amounts of bandwidth that are required to conduct video conferencing, and pointed out that the way tools are implemented and used impact interactions and learning.

Sharing information and opinions. Providing students with the opportunity to share information and opinions with one another in online courses was identified as being important to community by three participants. This was primarily brought up when addressing how their program promotes the common goal of learning. The discussion board was identified as the primary means of achieving this, allowing for students to experience different interpretations of the course information. One participant opined that sharing assignments with fellow students as well as the instructor would contribute to community. He provided an example of students developing a PowerPoint presentation for the course. He asserted that presentations lend themselves to showing one's personality, so if presentations were shared among the students, it would allow them to get to know each other better and "get your personal opinion" which would strengthen the community.

Additional findings. The four elements discussed above represent factors that were identified by three or more participants in the interviews; however, there were other elements of note that emerged from the interviews. Two students interviewed were in a program using a cohort model, so they had the same classmates in all of their courses. Both of them felt strongly that the cohort model was important to their learning and feelings of connectedness in their courses. One of them said, "I think the cohort model is definitely doing its job of making me feel connected" and the other participant concurred, saying, "that cohort model really works". A third student revealed that she was attending her program with two co-workers which impacted her sense of community. During the interview she rated the sense of community in her courses as 7 out of 10, but admitted that "If I didn't have them, I know I would feel different about the course I'm in right now."

Another element that surfaced as a contributor to sense of community is the students' orientation and connection to the college. Two participants spoke at length regarding the importance of being oriented to the college and its values. One participant described learning "what the school's all about" through an orientation when he began the program and noted that it's "real important for the school, and the teachers take it to heart". Another participant specifically pointed to the college's website as important to him feeling connected. The website features personal and sometimes emotional stories of students, faculty, staff, and alumni of the college, which he describes as "very touching" and goes on to say, "I think it's one of the biggest thing that connects me with the university".

Finally, when asked how their program promotes the common goal of learning in their online courses, two participants indicated that the nature of graduate education makes the goal inherent for the students. One participant differentiated undergraduate and graduate programs,

saying that when "you get into graduate school you are motivated by yourself because you have a specific goal now". She went on to explain, "I don't know that the college can do specifically anything to promote the learning. You have to take what's given to you which is everything you need." Another participant indicated that he was required to obtain the degree he was pursuing in order to continue in his career, so the need-based nature of completing the degree led students to enter the program with the common goal of learning already in place.

The combination of quantitative and qualitative results provide a thorough understanding of the primary and secondary research questions: What are graduate students' perceptions regarding sense of community and what contributes to graduate students' sense of community in the online graduate programs at a small, private college? However, there are other questions that must be explored beyond this study to gain in depth knowledge of the topic. To further analyze the results, and consider future research needs, discussion of this study in comparison with findings in the literature and recent research must be conducted.

Chapter 5 Discussion

Throughout the literature it is clear that a strong sense of community positively impacts education by contributing to retaining learners, and increasing student satisfaction and perceived learning (Rovai, 2002). While creating effective learning communities in the classroom has long been a focus for educators, establishing a strong sense of community among disparate and physically distant learners is a new challenge in academia. For effective education to occur online, it is important to recognize that the needs of online students are different, and the tools used in the virtual environment require different pedagogical approaches. To deepen understanding of students' perceptions regarding sense of community online, and how educators can best establish a sense of community that meets the needs of the graduate students in their online courses, this study sought to answer the following research questions:

Primary Question: What are graduate students' perceptions regarding sense of community in the online graduate programs at a small, private college?

Secondary Question: What contributes to graduate students' sense of community in the online graduate programs at a small, private college?

The findings from this study align with the findings in the literature. Several aspects were repeatedly identified by the participants as important to sense of community in their online courses, particularly items related to interactions and the role of the instructor. All the data gathered through this study should be examined through the lens of adult learning theory to determine why the data emerged as it did, and how to address the results in practice.

Adult Learning Theory

Several findings from this study align with adult learning theory. As indicated in the literature, adults enter educational programs with life and work experience on which to draw, and

they find meaning in sharing those experiences (Jacobs & Hundley, 2010). Participants of this study supported that theory when they indicated that sharing experiences and interpretations of the course content was an important factor contributing to their learning and sense of community. Not only did sharing those experiences contribute to their learning, it also made them feel connected to their classmates by getting to know more about them and their values, especially those they have in common. One example of this was addressed by several participants who explained that they tend to seek out particular students in their classes whose discussion posts are "worth the read" and they gravitate toward engaging with familiar "faces" online. In addition, older adults seemingly have more experiences from which to draw and share, supporting the finding that sense of community was higher among older students (ages 55-65) than younger students.

Participants also indicated that consistent course design or structure along with clear expectations, objectives, and goals contributed to their learning and connectedness. This supports the body of research that suggests that while adult learners desire flexibility, they also often desire structure (Ross-Gordon, 2001). Because adult learners are goal-oriented and experience-based, course structure coupled with freedom of expression, is a positive combination for adult students online. In addition, because most adults enter an educational program voluntarily, they are often highly motivated. Participants in this study supported that theory when they indicated that the nature of graduate education makes the common goal of learning inherent for the students. This is an important distinguishing feature to be considered when designing online education for adults versus children.

As indicated in the literature, adult students have many competing priorities which can sometimes impede their ability to complete their academic goals. This did come up regularly in

this study, particularly in the comments provided by participants of the survey. One participant stated, "I actually prefer having a very limited sense of community; I have enough demand on my limited time….additional obligations to an online group would be a pain to deal with". Another participant indicated that the demands on his/her time "leaves little time to ask and seek fellowship and support from your fellow classmates" and another participant stated, "I do not necessarily need to feel like a community at school because I am already connected to my home, work and church community". Educating students about the impact sense of community has on the learning process could alleviate such feelings among students. Doing so, along with designing online courses that incorporate community-building activities as course requirements, could reinforce the value of community so that it is seen as a part of the learning process rather than an extra unnecessary obligation. It is also important to note that the type of student that pursues online education could impact the perception of community. For example, one student described him/herself as "an introvert" and indicated that he/she did not have a strong sense of community because they were "not looking for one". Again, this is where education regarding the importance of community could be of value.

Interactions

Interactions in online courses, whether student-student, or student-teacher, are critical to sense of community, greatly impacting learning and students' feelings of connectedness. The lack of direct student-teacher and student-student interactions has been identified by some as a limitation of online learning (Smith Jaggars & Bailey, 2010). Participants of this study agreed that the asynchronous nature of online learning is a challenge to establishing community. However, several participants discussed the value of asynchronous communication, as it allows them time to develop thoughtful, in-depth responses to their classmates and instructor. In

addition, it allows students to receive feedback and information when they need or want it, rather than at a prescribed time that may or may not be most conducive to their learning.

It appears that asynchronous course interactions that are well designed can contribute greatly to sense of community and the effectiveness of an online course. In particular, this study found that online courses that require frequent and regular interactions that allow for one's personality to be expressed, are important contributors to sense of community. Borup, West, & Graham (2012) found that the majority of students who interacted with asynchronous video in their online course felt as though they were communicating directly with their instructor, and some indicated that their interaction with the instructor was similar to what they experienced in a face-to-face classroom. One participant addressed this when he indicated that he felt much more connected to the instructors when they used video to record themselves presenting information to the class. It seems that video is a valuable tool to enhance asynchronous communication in online courses.

Although asynchronous interactions can be effective if designed properly, synchronous interaction does seem to be important to students in the online environment. Synchronous interactions seem to convey a more personal connection that is difficult to replicate without face-to-face or voice-to-voice contact. Whether the synchronous interaction is formal and led by the instructor, or informal correspondence among classmates, incorporating some sort of live, synchronous interaction is important to sense of community in online courses. Incorporating both synchronous and asynchronous activities in online courses seems to be the most effective strategy to establish a strong community. These findings align with a "blended" approach to education, which has been found to produce a stronger sense of community among students than traditional or online courses (Rovai & Jordan, 2004).

Designing online courses that allow for those personal interactions to occur, and a strong sense of community to emerge, is important to improving student persistence, as research shows that online students are less likely to complete their courses (Smith Jaggars & Bailey, 2010). One student, who was in a cohort model, spoke at length about this phenomenon, indicating that there were points during his time in the program where his personal and professional commitments made it difficult to focus on his academic work. He considered quitting the program, and although he acknowledged that he had every justification to do so, he reconsidered when he realized "I've gone this far with these people". He went on to explain, "I want to meet these people, I want to graduate with them, I want to high-five, and exchange numbers, and get together in five years… I think that's part of what's helped me, I guess, is that community". The comments from this participant support the idea that students' commitment to academia goes beyond their personal goals. According to Rovai (2002), students who have a strong sense of community in their classes feel an obligation to one another and the school, and that meeting the educational needs and expectations for themselves and their classmates requires shared commitment to the learning goals. In addition to incorporating community-building strategies in online courses, a cohort model may be the most effective way to establish a strong sense of community.

Instructor Responsibility

The impact the instructor has on sense of community cannot be ignored. Positive aspects of learning in a face-to-face classroom, such as interactivity and social presence, can be replicated online if the instructor establishes course activities and requirements that focus on those components. As one participant explained, the instructor "sets the stage" for how engaged students will be in their online courses and the strength of the community. The literature asserts

that creating a conducive online learning environment requires appropriate use of both pedagogy and technology (Menchaca & Bekele, 2008). Participants of this study agree, as indicated during their discussions of both teaching methods and use of technology in their online courses. For example, participants commented on the value of instructors' use of particular technology applications such as Youtube and Twitter and how the effective use and incorporation of that technology in their online courses contributed to their learning and connectedness. Utilization of such technology is important, as advocates of online learning indicate that education enhanced by technology can lead to superior learning outcomes (Smith Jaggars & Bailey, 2010). Online instructors must stay abreast of the latest technology and educational institutions must provide instructors with the opportunities and resources to do so.

Teaching presence was discussed most often by the participants. Not only is the instructor's pedagogical approach important, their participation, or presence, in the course is significant to students' sense of community as well. This study found that some strategies instructors can use to enhance community in online courses include incorporating both synchronous and asynchronous interactions, requiring regular participation as a part of the course grade, providing timely responses and feedback, and regularly contributing to course discussions.

Limitations

The limitations of this study relate to the data collection and generalizability of the results. The data measured students' perceptions, which allows for interpretation. Data from students may have been impacted by fear of their responses being relayed to their program instructors and administrators, especially given that the researcher is a current faculty member at the college. The sample was drawn from one college, so the results may not apply to other colleges. The low response rate also limits generalizability.

Future Research

Future research in this area could focus on measuring the effectiveness of specific strategies used to establish a strong sense of community in online courses, perhaps comparing strategies to determine which are most effective, and focusing on outcomes to determine how those strategies impact grades, student satisfaction, and persistence. The long term ramifications of the increase in online learning and how it impacts education should be examined. As has been found in the research, the role of the instructor is changing as we adapt to virtual education. It will be important to examine how the role of the instructor is adapting to new pedagogical and community-building strategies that are effective online. In addition, future research should investigate the impact online education has on the feelings of connectedness alumni have toward their college, their program, and fellow classmates. Creating a strong community of students will impact the strength of the alumni contingency and their future commitment to their schools and programs.

Conclusion

As online education changes how we teach and learn, the education discipline must continue to examine pedagogical strategies that are effective in a virtual learning environment. With its positive impact on student outcomes, sense of community is one aspect of education that should be closely studied now and into the future. Following in the footsteps of Peter Block (2008), this dissertation was written to support those who care for the well-being of their community. Although our ideas of community may be changing, a strong sense of community can be established in a virtual environment through intentional efforts to engage and connect the members. This study is meant to provide a framework to assist those who are committed to supporting their educational community.

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Appendix A

Classroom Community Scale

Hamline University

Students' Perceptions of Sense of Community in Online Graduate Programs

Informed Consent

You are invited to participate in a research study investigating graduate students' perceptions of community online and strategies for establishing a strong sense of community. This study is being conducted by Amy Watters, a doctoral student in the Doctorate in Education program at Hamline University. You were selected as a possible participant because you are a student in an online graduate program at the College of St. Scholastica (CSS). .Please read this consent form and ask any questions you may have before agreeing to be in the study.

Study Purpose

The purpose of this study is to examine students' perceptions of community in the completely online graduate programs at CSS and strategies that contribute to a strong sense of community in the online courses.

Study Procedure

This is a two part, mixed method study. The first phase is a survey. If you agree to participate in this study by clicking the link below, you will complete a survey regarding your perceptions of community in the online graduate courses at CSS. As part of the survey, you will be asked to volunteer (by providing your email address) for a one-on-one, semi-structured interview in which you may be randomly selected to participate for phase two of the study. If you supply your email address and are selected to participate in an interview, you will be asked about specific activities that contribute to a strong sense of community in the online courses.

Risk of Study Participation

Participants may have concerns about the confidentiality of their responses and possible retaliation if other students, faculty or staff disagree with their responses. Your responses will remain anonymous and confidential. Participants will not be named in the study and all data will be unidentified. Survey results are not tied to your IP address, nor to any email address that is supplied for participation in phase two, the interview portion of the study. Electronic data will be stored online in a password protected

software application or in a password protected, encrypted jump drive which will be kept in a locked file cabinet where any paper documentation will also be stored. Survey and interview results will be kept for 5 years after which time it will be destroyed.

Benefits of Study Participation

There are no direct benefits to participants in this study. The research will contribute to the current body of knowledge on the topic of community building in the online environment. The results may be used by CSS to inform how online programing is conducted at the college.

Confidentiality

The records of this study will be kept private. In any publication or presentations, we will not include any information that will make it possible to identify you as a subject. Your record for the study may, however, be reviewed by individuals at CSS with appropriate regulatory oversight. All data collected will be stored in a locked filling cabinet and/or on a password protected computer. To these extents, confidentiality is not absolute. Survey and interview responses will be retained securely for five years after which time it will be destroyed.

Voluntary Nature of the Study

Participation in this study is voluntary. Your decision whether or not to participate in this study will not affect your current or future relations with CSS, or the department or program in which you are enrolled. If you decide to participate, you are free to withdraw at any time without affecting those relationships.

Contact and Questions

The researcher conducting this study is Amy Watters. You may ask any questions you have now, or if you have questions later, you are encouraged to contact her at 218-723-7094 or by email at awatters01@hamline.edu.

If you have any questions or concerns regarding the study and would like to talk to someone other than the researcher, you are encouraged to contact the following individuals:

- Research Advisor: Char Myers – 612-817-7897
- Department Chair: Karen Moroz – 651-523-2927
- School Dean: Nancy Sorenson – 651-523-2964
- Robert Hensley, Ph.D., Chair of the CSS Institutional Review Board (218-723-6627)

You may also contact any of the above-named individuals in writing or in person at The College of St. Scholastica, 1200 Kenwood Ave, Duluth, MN 55811.

Your completion of this survey indicates that you have decided to participate in this study and that you have read and understand the information in this consent form.

What is your gender?

- ❍ Male
- ❍ Female

Please select your current age group:

- ❍ 18-24
- ❍ 25-34
- ❍ 35-44
- ❍ 45-54
- ❍ 55-65
- ❍ Over 65

What is your ethnicity/racial group?

- ❍ American Indian or Alaskan Native
- ❍ Asian
- ❍ Black or African American
- ❍ Hispanic
- ❍ Native Hawaiian or Other Pacific Islander
- ❍ White
- ❍ Multi-racial
- ❍ I don't identify with any racial/ethnic group
- ❍ Other, please specify _____
- ❍ I prefer not to respond

Please select your academic program (select all that apply):

- ❑ Rural Healthcare MBA
- ❑ M.A. IT Leadership
- ❑ Master of Education
- ❑ M.S. Health Informatics
- ❑ M.S. Project Management
- ❑ Transitional Doctor of Physical Therapy
- ❑ I prefer not to respond

How many online graduate courses have you taken in the CSS program in which you are currently enrolled?

- ❍ 0-2
- ❍ 3-6
- ❍ 7-10
- ❍ 11-14
- ❍ 15 or more
- ❍ Unsure

Are you a full-time or part-time student?

- ❍ Full-time (at least 6 graduate credits per semester)
- ❍ Part-time (less than 6 graduate credits per semester)
- ❍ It varies

What is your employment status?

- ❍ Full time
- ❍ Part time
- ❍ Unemployed

Below you will see a series of statements concerning the online courses in the program for which you are presently enrolled. Read each statement carefully and choose the item to the right of the statement that best indicates how you feel about your program based on the online course(s) you have taken to date. There are no correct or incorrect responses. If you neither agree nor disagree with a statement or

are uncertain, choose that you neither agree nor disagree. Do not spend too much time on any one statement, but give the response that seems to describe how you feel. Please respond to all items.

Graduate Students' Perceptions of Community and Contributing Factors

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. I feel that students in this program care about each other	❍	❍	❍	❍	❍
2. I feel that I am encouraged to ask questions	❍	❍	❍	❍	❍
3. I feel connected to others in this program	❍	❍	❍	❍	❍
4. I feel that it is hard to get help when I have a question	❍	❍	❍	❍	❍
5. I do not feel a spirit of community	❍	❍	❍	❍	❍
6. I feel that I receive timely feedback	❍	❍	❍	❍	❍
7. I feel that this program is like a family	❍	❍	❍	❍	❍
8. I feel uneasy exposing gaps in my understanding	❍	❍	❍	❍	❍
9. I feel isolated in this program	❍	❍	❍	❍	❍
10. I feel reluctant to speak openly	❍	❍	❍	❍	❍
11. I trust others in this program	❍	❍	❍	❍	❍
12. I feel that this program results in only modest learning	❍	❍	❍	❍	❍
13. I feel that I can rely on others in this program	❍	❍	❍	❍	❍

14. I feel that other students do not help me learn	❍	❍	❍	❍	❍
15. I feel that members of this program depend on me	❍	❍	❍	❍	❍
16. I feel that I am given ample opportunities to learn	❍	❍	❍	❍	❍
17. I feel uncertain about others in this program	❍	❍	❍	❍	❍
18. I feel that my educational needs are not being met	❍	❍	❍	❍	❍
19. I feel confident that others will support me	❍	❍	❍	❍	❍
20. I feel that this program does not promote a desire to learn	❍	❍	❍	❍	❍

Please provide any comments you would like to share regarding the sense of community you have experienced in the online courses in the program for which you are enrolled.

Please provide any comments you would like to share regarding the topic of community or online learning in general.

If you would like to volunteer to potentially have a follow-up conversation regarding your experience in online programs, please enter your email address below. This is completely voluntary. The lead researcher will randomly select 6 individuals for interviews.

Classroom Community Scale reference: Rovai, A.P. (2002). Development of an instrument to measure classroom community. *The Internet and Higher Education, 5*(3), 197-211.

Appendix B

Semi-Structured Interview Guide

Hamline University

Students' Perceptions of Sense of Community in Online Graduate Programs

For this interview, sense of community is defined as feelings of connectedness among members (feeling of belonging and acceptance, and bonding relationships), and commonality of learning expectations and goals (the feeling that knowledge and meaning are actively constructed within the community, that the community enhances the acquisition of knowledge and understanding, and that the learning needs of its members are being satisfied).

1. What is your age?

2. How many online graduate courses have you taken in the program in which you are enrolled?

3. On a scale of 1-10 (1 being low; 10 being high), how do you rate the sense of community in your online courses?

4. On a scale of 1-10, (1 not at all important; 10 extremely important) how important do you consider sense of community to be in terms of contributing to your learning?

5. Reflect on **interactions** and **collaboration** you've experienced in your online courses. These could be interactions/collaboration with other learners, the faculty, and/or the course content. Describe how those contributed to your sense of community. Are there any tools, resources, or strategies you would recommend be used to increase the interactions and collaboration in your online courses?

6. This question focuses on **connectedness**, whether to the people (students and faculty), the program, and/or the college. What makes you feel connected to others? Describe course activities that contribute to a feeling of connectedness in your online courses.

7. Describe ways that your program promotes the **common goal of learning** in your online courses.

8. Describe some of the challenges or barriers that exist when connecting with others in your online courses.